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STATUTORY ORDERS AND REGULATIONS

CONSOLIDATION, 1949

VOLUME IV

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OTTAWA
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STATUTORY ORDERS AND REGULATIONS
in effect on 31st December, 1949

SALT FISH BOARD ACT. (1939, c. 51)

No statutory orders or regulations under this statute were in effect on December 31, 1949.

SAVINGS BANKS ACT. (R.S.C., 1927, c. 15)

Regulations for the conduct of the Post Office Savings Bank

(Made by the Postmaster General on the 17th June, 1937, pursuant to the Savings Banks Act.)

1. Every Post Office, being a Money Order Office, at which the Postmaster General shall permit deposits to be received for remittance to the Central Savings Bank in the Post Office Department at Ottawa, will be open for that purpose and for the repayment of moneys withdrawn (delivery of Withdrawal Cheques), during the hours appointed for the transaction of Money Order Business at the said Post Office, and at such other hours as may, from time to time, be appointed in any case by the Postmaster General.

Amount of deposit

2. Deposits of One Dollar, or of any number of Dollars, will be received from any Depositor at the Post Office Savings Banks, provided the deposits made by such Depositor in any year ending the 31st March do not exceed \$1,500, and provided the total amount standing in such Depositor's name in his ordinary deposit account in the Books of the Postmaster General does not exceed \$5,000, exclusive of interest.

Name, address and occupation of depositor to be furnished

3. (a) Every Depositor, on making a first deposit, shall be required to specify his Christian name and surname, occupation and residence, to the Postmaster, or other officer of the Postmaster General receiving such deposit, and make and sign the following Declaration to be witnessed by the said Postmaster or other officer receiving the deposit, or by some person known to him, or by a Justice of the Peace; and if such Declaration or any part thereof, shall not be true, the Depositor making the same shall forfeit and lose all right and title to his deposits.

Savings Banks Act—continuedDEPOSITOR'S BOOK**DECLARATION BY DEPOSITOR ON
MAKING FIRST DEPOSIT**

Office
No

I.....of.....do hereby declare to the Postmaster General that I am desirous, on my own behalf, to become a Depositor in the Post Office Savings Bank, and I do hereby also testify my consent that my deposits in the said Post Office Savings Bank shall be managed according to the regulations thereof.

Witness my hand, this.....day of.....19....

Signed by the said Depositor, in the
presence of me

.....
.....

NOTE.—When this Declaration is made on behalf of a minor under 7 years of age, the age of such minor must be here stated after his name; and the minor's name at the foot must be followed by the signature of a parent or friend on his behalf.

Parents cannot obtain repayment of deposits made by them on behalf of minors under seven, and repayment will not be made to such minors until they reach the age of seven years.

(b) The following Declaration must also be made and signed by the Depositor .

I, the Depositor named in the foregoing Declaration declare that I clearly understand that for every deposit I shall place in the hands of a Postmaster for transmission to the Post Office Savings Bank, I must see that I receive a direct receipt from the Postmaster General, and that the Postmaster's entry in the Pass Book is not sufficient without the further receipt from Ottawa.

Signed by the said Depositor, in the
presence of me

.....
.....

If the Depositor cannot write, the following certificate must be signed by two persons both over the age of twenty-one years:—

We, the undersigned, testify that the above Declaration was read to the Depositor named therein, in our presence and in our hearing, and that the Depositor stated that he understood the same.

.....Signature
.....Occupation
.....Signature
.....Occupation

On making the Declarations aforesaid, and in all cases in which the signature of a Depositor is required, if the Depositor cannot write, his mark must be affixed in the presence of a witness, and attested by the signature, of that witness.

Savings Banks Act—continued

Deposits may be withdrawn at any Savings Bank office

4. A Depositor in any of the Savings Bank Post Offices may continue his deposits at any other of such offices without notice or change of Pass Book, and can withdraw money at the Savings Bank Office which is most convenient to him. For instance, if he makes his first deposit at the Savings Bank at Cobourg, he may make further deposits, at, or withdraw his money through the Post Office Savings Bank at Collingwood or Quebec, Sarnia, Brockville or any place which may be convenient to him, whether he continues to reside at Cobourg or removes to some other place.

Deposits, how received, entered, reported to the Postmaster General and acknowledged

5. (a) Every deposit received by a Postmaster, or other Officer of the Postmaster General appointed for that purpose, shall be entered by him at the time in a numbered book, and the entry shall be attested by him and by the dated stamp of his office, and the said Book, with the entry so attested, shall be given to the Depositor and retained by him as primary evidence of the receipt of the deposit.
- (b) The Depositor shall sign his name in a place to be provided for his signature in the Depositor's Book.
- (c) The amount of each deposit so received, and the name, occupation and residence of the Depositor, shall, upon the day of the receipt thereof, be reported to the Postmaster General, and the Acknowledgment of the Postmaster General for the said deposit, signified by the Officer whom he appoints for the purpose, shall be forthwith transmitted by post to the Depositor as the conclusive evidence of his claim to the repayment of the deposit, with the interest thereon, upon demand made by him on the Postmaster General.
- (d) If the Depositor does not receive the said Acknowledgment within TEN DAYS (or EIGHTEEN DAYS if resident in Western Canada) from the day on which he makes a deposit, he must apply for the same to the Postmaster General by letter, and, if necessary, renew his application to the Postmaster General until he receives the said acknowledgment.

Interest

6. (a) Interest calculated yearly, at a rate not exceeding four per cent per annum (the present rate is 2 per cent), is allowed on deposits, and shall be computed from the first day of the calendar month next following the day on which the deposit is made, up to the first day of the calendar month in which moneys are withdrawn.
- (b) The interest will be calculated to the thirty-first day of March in every year, and will then be added to and become part of the principal money.

Savings Banks Act—continued*Trust Accounts*

7. (a) Deposits may be made by a Trustee on behalf of another person, in the joint names of such Trustee and the person on whose account such money shall be so deposited; but repayment of the same, or any part thereof, shall not be made without the receipt and receipts of both the said parties, or the survivor or survivors, or the Executors or Administrators of such survivor, whose receipt and receipts, either personally or by agent appointed by power of attorney, which power of attorney, in the case of minors, may be executed by such minor if of, or exceeding, the age of fourteen years, shall alone be a valid discharge, except in the case of insanity or imbecility of the party on whose behalf the deposits were made, when the Postmaster General may, on proof of the fact to his satisfaction, allow repayment to be made to the Trustee alone.
- (b) The following Declaration must be made in such cases:—

DEPOSITOR'S BOOK		DECLARATION BY THE TRUSTEE OF A DEPOSITOR	
Office			
No.			
I,		(occupation)	
of		(residence)	
do hereby declare to the Postmaster General that I am desirous of becoming a			
Depositor in the Post Office Savings Bank as the Trustee of.....			
.....(occupation) of and I do further			
declare on behalf of myself, and also on behalf of the said.....			
..... that we are not either jointly or severally, directly or			
indirectly, entitled to any deposit or benefit from the funds of the Post Office			
Savings Bank, nor to any sum or sums standing in the name or names of any			
other person or persons in the Books of the said Savings Bank.*			
Witness my hand this.....day of..... 19....			
Signed by the said Trustee }			
in the presence of me. }			
.....			
.....			

*Save and except such sum or sums as may be standing in my name as a Depositor, in my own account, or as Trustee jointly with the name or names, and on behalf of any other Depositor or Depositors.

NOTE.—This Declaration is to be signed by the Trustee alone—but the names of BOTH PERSONS must be written on the cover of the Pass Book, and the signatures of BOTH PERSONS will be required to a Notice of Withdrawal.

- (c) The following Declaration must also be made and signed by the trustee:—

I, the Trustee above named, declare that I clearly understand that for every deposit I shall place in the hands of a Postmaster for transmission to the Post Office Savings Bank I must see that I receive a direct receipt from the Postmaster General, and that the Postmaster's entry in the Pass Book is not sufficient without the further receipt from Ottawa.

Signed by the said Trustee
in the presence of me

.....

.....

Savings Banks Act—continued

- (d) If the Trustee cannot write, the following certificate must be signed by two persons, both over the age of twenty-one years:—

We, the undersigned, testify that the above Declaration was read to the Trustee referred to therein, in our presence and in our hearing, and that the said Trustee stated that he understood the same.

.....Signature
Occupation
Signature
Occupation

- (e) In case any such Declaration shall not be true, the person making the same shall lose all right and title to his deposits.

NOTE.—Joint accounts may be arranged by communication with the Savings Bank Division, Financial Branch, P.O. Dept., Ottawa.

Minors

8. (a) Deposits may be made by or for the benefit of any person under twenty-one years of age.
 (b) In case of minors under the age of seven years, the declaration must be made by one of the parents, or by a friend on behalf of the minor.
 (c) Repayment to a minor over seven years of age shall be made in the same manner as if he were of full age.

9. Deposits may be made by married women, and deposits so made, or made by women who shall afterwards marry, will be repaid to any such women.

*Annual transmission of depositors' books to the
 Postmaster General*

10. Every Depositor shall, once in each year, on the anniversary of the day on which it was issued (or renewed), forward his Book to the Postmaster General, in a cover to be obtained at any Post Office Savings Bank, in order that the entries in the said Book may be compared with the entries in the Books of the Postmaster General, and that the interest due to the Depositor on the preceding 31st March may be inserted in his book.

Renewing Depositors' Books

11. No charge shall be made upon Depositors for the Books at first supplied to them, or for Books issued in continuation thereof. If any Depositor shall lose his Book, and shall desire a new Book, application must be made by him to the Postmaster General, by letter, stating the circumstances and the Postmaster General shall then issue a new Book, as he thinks fit.

12. No charge for postage shall be made upon the Depositors for the transmission of their Books to the Postmaster General, or for the return thereof to them, or for any applications they may have to make for acknowledgments of deposits, or for any application or necessary letter of inquiry respecting the sums deposited by them, or for the replies thereto.

Savings Banks Act—continued

Withdrawals

13. (a) Any Depositor wishing to withdraw the whole or part of the sum deposited by him must make application for the same to the Postmaster General with Pass Book, in the following form, a printed copy of which may be obtained at any Post Office Savings Bank. Withdrawals, in even dollars up to a maximum of \$100.00 in any one day may be made in cash on demand, providing the Postmaster has sufficient funds on hand.

DEPOSITOR'S BOOK
Office The day of 19....
No. To the POSTMASTER GENERAL,
OTTAWA

I enclose my passbook and hereby give Notice that I wish to withdraw the sum ofDollars, from my Deposit Account, bearing the above Number in the Books of the Post Office Savings Bank, and I request that a Cheque may be issued for the above named sum, and be delivered to me at the Post Office Savings Bank at

..... Signature }
..... Occupation }
..... Address }
of Depositor

NOTE.—If the Depositor cannot write, his mark must be affixed in the presence of a witness, and attested by the signature of that witness.

- (b) No less amount than One Dollar, or some number of Dollars shall be withdrawn, except when a Depositor withdraws all the money, both principal and interest, due to him.
- (c) In the Form of Application for withdrawal, the Depositor must specify the number of his Pass Book and the name of the Savings Bank Post Office at which the Book was originally obtained, the sum required, his occupation and residence, and the name of the Savings Bank Post Office at which he desires to receive the Postmaster General's cheque in repayment of his deposits. On receipt by the Postmaster General of such Application, duly filled up and signed, a cheque will be sent, by return of mail, for delivery to the Depositor.
- (d) When the withdrawal Cheque has been forwarded by the Postmaster General, the Depositor will be notified, and he should then, with the least possible delay, apply to the Postmaster for it.
- (e) The Postmaster General will endeavour to prevent fraud, and to identify every Depositor transacting business with the Post Office Savings Bank; but if any person shall fraudulently represent himself to be a Depositor, and by forwarding the proper Notice of withdrawal, and by presentation of the Depositor's book, and compliance with the Rules of the Department, shall obtain any sum of money belonging to that Depositor, the Postmaster General will not be responsible for the loss thereof.
14. (a) Delivery of the Postmaster General's Cheque for a withdrawal shall be made only to the Depositor in person, or to the bearer of an Order under his hand, signed in the presence of a Justice of

Savings Banks Act—continued

the Peace for the place in which the Depositor resides—or, in case of sickness, of the medical attendant. If the Depositor be resident abroad, his signature must be verified by some constituted authority of the place in which he resides.

- (b) The following is the form of Order to be signed by the Depositor on such occasions, a copy of which may be obtained at the Post Office at which the Cheque is made receivable.

**ORDER BY A DEPOSITOR WHO CANNOT PERSONALLY RECEIVE A
CHEQUE ISSUED TO HIM**

To the Postmaster of.....
I, the undersigned, holder of Pass Book No. issued to me at the
.....Post Office, do hereby authorize and direct.....
the bearer of this Order, to receive for me Post Office Savings Bank Cheque
No..... dated theday of..... 19....
for the sum of.....Dollars, for which Cheque the receipt of the
above named person shall be a good and sufficient discharge.

As witness my hand, this..... day of.....19....
WITNESS:

..... Signature }

*..... Occupation }

..... Address }

Of Witness

..... Signature }

..... Occupation }

..... Address }

Of Depositor

*State whether Justice of the Peace, Medical Attendant, etc.

Funds of Deceased Depositors

15. In case any Depositor shall die, leaving a sum of money not exceeding \$300, exclusive of interest, deposited in the Post Office Savings Bank, and Probate of his Will, or Letters of Administration, or Acte de Curatelle or de Tutelle, be not produced to the Postmaster General, or if notice in writing of the existence of a Will, and intention to prove the same or to take out Letters of Administration, or to be appointed Tutor or Curator, be not given to the Postmaster General at the Post Office Department within the period of one month from the death of the Depositor; or, if such notice be given, but such Will be not proved, or Letters of Administration, or Acte de Tutelle or de Curatelle be not taken out, and the Probate or Letters of Administration, Acte de Tutelle or de Curatelle (as the case may be) produced to the Postmaster General within the period of two months from the death of the Depositor; it shall be lawful for the Postmaster General, after such period of one or two months, as the case may be, to pay and divide such funds at his discretion to or amongst the widow or relatives of the deceased Depositor, or any one or more of them; or, if he shall think proper, according to the provisions of law governing the distribution of property in all such cases.

16. In case any Depositor shall die leaving any sum of money in the Post Office Savings Bank, which (exclusive of interest) shall exceed the sum of \$300 the same shall only be paid to the Executor or Administrator,

Savings Banks Act—concluded

Tutor or Curator, on the production of the Probate of the Will, Acte de Tutelle or de Curatelle, or Letters of Administration of the estate or effects of the deceased Depositor, to the Postmaster General.

17. If any Depositor, being illegitimate, shall die intestate, leaving any person or persons who, but for the illegitimacy of such Depositor, and of such person or persons, would be entitled to the money due to such deceased Depositor, it shall be lawful for the Postmaster General, with authority, in writing, of the Attorney General of Canada, to pay the money of such deceased Depositor to any one or more of the persons who, in his opinion, would have been entitled to the same, according to law, if the said Depositor and such person or persons had been legitimate.

Incapacitated Depositors

18. If any Depositor shall become insane or otherwise incapacitated to act, and the same shall be proved to the satisfaction of the Postmaster General, and he shall be satisfied of the urgency of the case, he may authorize payment, from time to time, out of the funds of such Depositor, to any person whom he shall judge proper, and the receipt of such person shall be a good discharge for the same.

Settlement of Disputes

19. If any dispute shall arise between the Postmaster General and any individual Depositor, or any Executor, Administrator, Tutor or Curator, next of kin, or creditor or assignee of a Depositor who may become bankrupt or insolvent, or any person claiming to be such Executor, Administrator, Tutor or Curator, next of kin, creditor or assignee, or to be entitled to any money deposited in the Post Office Savings Bank, then, and in every such case, the matter in dispute shall be referred, in writing, to the Attorney General of Canada; and whatever award, order or determination shall be made by him shall be binding and conclusive on all parties, and shall be final, to all intents and purposes without any appeal.

Information not to be Disclosed

20. The Postmasters, and other Officers of the Post Office, engaged in the receipt or payment of deposits, are forbidden to disclose the name of any Depositor, or the amount deposited or withdrawn by him, except to the Postmaster General or to such of his Officers as may be appointed to assist in carrying out the provisions of the Post Office Act in relation to Post Office Savings Banks.

21. In the construction of these Regulations, unless otherwise indicated, words importing the masculine gender include females; words or things in the singular include the plural and words or things in the plural include the singular, and the word "month" means a calendar month.

SAVINGS DEPOSITS RETURNS ACT. (R.S.C., 1927, c. 183)

No statutory orders or regulations have been made under this statute.

SEA CADET CORPS, REGULATIONS FOR

See NAVAL SERVICE ACT, 1944.

SEALS ACT, (1939, c. 22)

No statutory orders or regulations have been made under this statute.

SEALS, REGULATIONS FOR THE PROTECTION OF

See FISHERIES ACT.

SEAMEN

See SHIPPING (Canada Shipping Act—Canadian Distressed Seamen Regulations); MERCHANT SEAMEN COMPENSATION ACT; VETERANS (Department of Veterans Affairs Act—Merchant Seamen Vocational Training Order).

SECURITIES TRANSFER TAX

See EXCISE TAX ACT.

SEED GRAIN ACT. (R.S.C., 1927, c. 87)

No statutory orders or regulations have been made under this statute.

SEED GRAIN ADVANCES

See DEBTS DUE THE CROWN ACT.

SEEDS ACT, 1937. (1937, c. 40)

Regulations under The Seeds Act, 1937

DEPARTMENT OF AGRICULTURE

UNDER AND BY VIRTUE of the authority conferred upon me by The Seeds Act, 1937, being Chapter 40 of the Statutes of Canada, 1937, I hereby revoke the Regulations made under the said Act on August 10, 1948, and substitute therefor the following Regulations, effective September 1, 1949:

Interpretation

1. In these Regulations:

- (a) "Act" means the Seeds Act, 1937;
- (b) "Plant Products Division" means the Plant Products Division, Production Service, Department of Agriculture, Ottawa.

Application

2. The Act and these Regulations shall apply to the seeds listed in Schedule A, onion sets and multipliers, seed potatoes and plants of field and garden vegetable crops.

Seeds Act—continued*General Quality Requirements*

3. (1) Each lot of seed offered or sold for seeding purposes in Canada—
- (a) shall within reasonable limits, be uniform, sound and sweet, and shall not contain an excessive amount of moisture, straws, stems, awns, leaf, chaff, dirt or other inert matter or shrunken, broken, discoloured, skinned, sprouted, heated or musty seed;
 - (b) shall not carry disease organisms or damage to an extent that will impair the utility of the seed as determined by methods recommended by the Dominion Botanist and Plant Pathologist of the Science Service, Department of Agriculture, Ottawa;
 - (c) shall be at least equal in general appearance and quality to a standard sample representing the grade of the kind thereof when such is established.
- (2) Any dispute arising from the application of paragraphs (a), (b) and (c) of subsection (1) shall be referred to the Plant Products Division.
- (3) Seed shall be designated as “rejected” and therefore unsuitable for seeding in Canada if it fails to meet the requirements of section 3, or if it is below the standard prescribed in Schedule B for the lowest grade of its kind, or if it contains prohibited noxious weed seeds; provided that in the case of field root or garden vegetable seed sold in accordance with section 6 of the Act, the germination of such seed may be lower than that prescribed in Schedule B for the lowest grade of its kind but not lower than twenty-five per centum.

Graded Seed

4. (1) The use of the grades named in section 5 of the Act shall conform with the following:
- (a) The registered grades shall apply only when the seed:
 - (i) is of a kind, variety or strain approved for registration by the Canadian Seed Growers' Association;
 - (ii) is produced from a crop covered by a crop registration certificate issued by the Canadian Seed Growers' Association certifying that the crop has met satisfactorily the requirements of the said Association for the registration of the seed crop;
 - (iii) has been inspected, graded, tagged or labelled and sealed in a container by an inspector.
 - (b) the certified grades shall apply only when the seed:
 - (i) is of a kind, variety or strain approved for certification by the Plant Products Division;
 - (ii) is produced from a crop covered by a seed crop certificate issued by the Plant Products Division, certifying that the crop has met satisfactorily the requirements for the certification of the seed crop, or is produced from a crop covered by a crop registration certificate;
 - (iii) has been inspected, graded, tagged or labelled and sealed in a container by an inspector.
 - (c) The General Seeds of Commerce grades shall apply to all other graded seed.
- (2) The purity, germination and any other standard for each grade of each kind of seed named in the tables of Grade Standards under Schedule B shall apply as indicated therein.

Seeds Act—continued

Root and Vegetable Seeds in Relation to Section 6 of the Act

5. (1) Subject to subsection (2), root and vegetable seeds of the kinds listed in Schedule A may be sold ungraded if the information required under section 6 of the Act is marked on their containers or on tags or labels attached thereto.

- (2) Where root and vegetable seeds referred to in subsection (1) are sealed as Registered or Certified, they may be sold ungraded only where,
- (a) the information required under section 6 of the Act is marked on their containers or tags or labels attached thereto;
 - (b) they are derived from a crop covered by a crop registration certificate or seed crop certificate, as the case may be;
 - (c) they meet the minimum purity standards for Registered or Certified grades respectively of the same kind; and
 - (d) they are inspected, tagged or labelled and sealed by an inspector.

The Use of Registration Control Numbers

6. (1) Under paragraph (f) of section 5 of the Act, a registration control number may be used in connection with any kind of seed sold under a grade name and which the seller guarantees to conform in purity, germination, general quality and in all other respects to any standard prescribed for such seed or grade thereof.

(2) Application for a registration control number may be made to the Plant Products Division and shall be accompanied by a statement in the following form:

"I hereby apply for a registration control number to be used solely by myself or my firm in the marking of containers

of
(Kind of Seed)

of
(Name of Variety)

of
(Grade)

I guarantee that the said seed will meet all requirements and standards for the kind, variety and grade of seed, as prescribed in the Seeds Act and Regulations.

.....
(Signature and Position Title of Applicant)."

(3) A fee of one dollar for each grade of each variety of each kind of seed shall accompany the application and the said fee shall be retained by the Crown whether or not a registration control number is assigned.

(4) The use of any registration control number shall expire on the first day of July following the date of issue but may be renewed from year to year; the annual renewal fee shall be one dollar.

(5) Any registration control number may be cancelled at any time and the use of registration control numbers refused to any person for an indefinite period for any violation of the Act or these Regulations.

Variety Names

7. (1) For the purposes of the Act, the names of the varieties to be included in a list of established variety names shall be those published from time to time by the Plant Products Division.

Seeds Act—*continued*

(2) Each variety name shall be used correctly as required under section 9 of the Act.

(3) Unless authorized by the Plant Products Division no change in the name of any variety of the said list shall be made.

(4) Any question or dispute arising from the cancellation or change in the name of any variety shall be referred by the Plant Products Division to the Director of Experimental Farm Service, Department of Agriculture, Ottawa.

Licensing New Varieties

8. (1) The licensing for sale of a new variety under the Act shall be subject to this section.

(2) The application for such licence may be made to the Plant Products Division.

(3) There shall accompany the application for the licence a statement from a Provincial Seed Board, or an Agronomist, Cerealists, Agrostologist, Field Husbandman or other qualified official of the staff of a recognized agricultural institution in Canada, recommending that the variety be licensed together with particulars in support of such recommendation as follows:

- (a) the proposed name of the new variety;
- (b) when and where the variety was originated;
- (c) its pedigree, if any, and history of development;
- (d) the results of any experiments or tests and the names of the Experimental Station or Stations where such experiments or tests were conducted; and
- (e) a detailed description of the variety respecting type, growth, period of maturity, range of adaptability, disease resistance, and any other characteristics desirable or undesirable.

(4) A licence shall be granted only when:

- (a) the variety name is acceptable; and
- (b) the variety is different and superior in important characteristics or economically superior to varieties already established under section 7 of the Act.

(5) When a variety is licensed for sale, the variety name thereof shall be added to the list of variety names established under section 7 of the Act.

(6) Any dispute or question arising from the granting, refusing, cancelling or deferring of a licence for any variety shall be referred by the Plant Products Division to the Director of Experimental Farm Service, Department of Agriculture, Ottawa.

Weed Seeds

9. (1) For the purpose of the Act the "prohibited noxious", "primary noxious", "secondary noxious" and "other weeds" shall be as classified and listed in Schedule C.

(2) Seed containing any "prohibited noxious" weed seed, shall be deemed to be "rejected" and therefore unsuitable for seeding in Canada.

Seeds Act—continued

(3) Notwithstanding that a seed of a cultivated crop listed in Schedule C is also listed in Schedule A, such seed shall for the purposes of these Regulations be a weed seed when present in the seed of another cultivated crop.

Marking and Labelling

10. (1) The information required on the container, tag or label under sections 5, 6 and 10 of the Act shall be—

- (a) plain, legible and indelible;
- (b) without fractions or decimals when percentages or numbers are marked.

(2) Words, marks or phraseology that state or imply that the seeds, sets or plants are approved, accepted or recommended by the Government or any department or service of the Government shall not be used in advertising, verbally or otherwise, or on the container, tag or label.

(Examples: Government inspected, tested or approved or Government Standard).

Further Information Required on Containers of Certain Seeds

11. (1) In addition to the information on the container, tag or label, required under section 5 of the Act, further information as indicated in this section shall be marked also.

(2) In the case of Red Clover seed or of a mixture containing 5 per cent or more of Red Clover seed, the words "Double-cut" or "Single-cut" shall be correctly used to indicate the type of Red Clover.

(3) In the case of hay and pasture mixtures:

- (a) the name and percentage by weight of each kind of crop seed which singly constitutes 5 per cent or more by weight of the mixture, or 1 per cent or more in the case of Sweet Clover;
- (b) each kind of such crop seed shall be stated in the order of its predominance in the mixture; and
- (c) the percentage by weight of "other crop seeds" expressed as such when such seeds in combination constitute 5 per cent or more by weight of the mixture, but not including any seed required to be marked subject to paragraph (a).

Examples

(Under paragraph (a)—Red Clover	94%
Alsike	5%
Sweet Clover	1%)
(Under paragraph (c)—Red Clover	94%
Other crop seeds.....	6%)
(Under paragraphs (a), (b) and (c)—	
Red Clover	86%
Alfalfa	5%
Sweet Clover	2%
Other crop seeds.....	7%)

(4) In the case of mixtures of lawn or turf grass seeds:

- (a) the words "lawn grass mixture" or "turf grass mixture" as the case may be; and in addition,

Seeds Act—*continued*

- (b) when contained in packages larger than 5 pounds each, the name of each kind of seed constituting by weight 5 per cent or more of the mixture, or 2 per cent or more in the case of White Clover.
- (5) In the case of seed of corn other than Pop or Squaw Corn:
 - (a) one of the following terms correctly used as prescribed in section 18 to indicate the type of corn, i.e., "Open Pollinated", "Varietal Cross" or "Hybrid"; and
 - (b) a term correctly used to describe the shape and size of the kernels may be marked also on the container, tag or label. (Examples: "large flat", "medium flat", "small flat", "large round", "medium round", or "small round".)
- (6) In the case of packets, cartons or other small containers of "Registered" or "Certified" seed, when the seller so wishes, a statement as follows:

"The Seller guarantees this seed to be of (insert the word "Registered" or "Certified" as the case may be) stock, Seed Inspection Certificate No."

(insert the number)
- (7) The seller of seed to which subsection (6) applies shall be held fully responsible for preserving the identity of the seed, and on demand prove that it came from the same lot of seed covered by the seed inspection certificate number marked on the packet, carton, or container.
- (8) Seed to which subsection (6) applies shall not be eligible for the production of registered or certified seed.
- (9) Any information required by the Act or these Regulations to be marked on the container, tag or label of any seed, may be modified to meet special conditions when so authorized in writing by the Plant Products Division.

Certificates, Tags and Seals

- 12.** (1) Inspection certificates, tags or seals used in connection with or on containers of registered, certified or other seed, shall be supplied only by or under the authority of the Plant Products Division.
- (2) Unless so authorized, the said tags or seals shall not be used by any person other than an inspector.
- (3) Unless authorized in writing by the Plant Products Division, no person shall copy, duplicate, reproduce or issue any certificate, tag, seal, form or report that might be construed as official under the Act or these Regulations.

Sampling and Samples

- 13.** (1) Each sample of seed for testing or grading under the Act or these Regulations shall be taken in such manner that the sample will truly represent the lot of seed sampled, in accordance with this section.
- (2) The seed may be sampled with an approved sampler or by hand or otherwise as circumstances may require to ensure that the sample is representative of the lot of seed.
- (3) Where there are ten bags or less in the lot of seed, each bag shall be sampled.

Seeds Act—continued

(4) Where there are not less than ten bags nor more than 100 bags in the lot, the seed in at least ten bags thereof shall be sampled.

(5) Where there are more than 100 bags in the lot, the seed in at least 10 per cent of the bags thereof shall be sampled.

(6) Where the seed is in bulk or is in a car, bin, truck or any other type of large container, it shall be sampled from at least seven different widely-distributed places including the top, middle and bottom portions of the bulk seed or containers.

(7) Seed in bulk in small containers shall be sampled in such a manner that the seed at the bottom as well as the top of the container is sampled.

(8) Where the seed is in paper packets, cartons or other small containers, it shall be sampled by taking enough of these small containers to fulfil the requirements of subsection (11).

(9) Where the seed taken from different parts of one or more containers appears to be of the same general quality, the sample shall be a composite mixture of the seed from such parts, but when the seed appears to be of variable quality separate samples shall be taken representing such variations in quality.

(10) Where an inspector takes a sample of seed for enforcing the Act and these Regulations, that sample shall be forwarded to an official analyst under seal for testing and shall be filed for one year thereafter.

(11) The sample taken shall be at least of the following size according to kind of seed, but an inspector may require a larger or smaller sample of any kind of seed when he deems it to be necessary or sufficient for the satisfactory application of the Act and these Regulations:

Barley, Oats, Rye and Wheat.....	32 ounces
Buckwheat, Emmer, Field Corn, Spelt and Sugar Beet.....	16 ounces
Beans (except Broad Beans and Runner Beans), Beets (except Sugar Beet), Garden Corn, Mangel, Peas, Sun- flower, Swiss Chard and Vetches	8 ounces
Alfalfa, Brome Grass, Crimson Clover, Flax, Hay or Pasture Crop Mixtures, Kidney Vetch, Lentil, Lespedeza, Lupine, Meadow Fescue, Millets, Red Clover, Rye Grasses, Sanfoin, Slender Wheat Grass, Sorghum, Subterranean Clover, Sudan Grass and Sweet Clover	
Alsike, Bird's-foot Trefoil, Black Medick, Crested Dog's Tail, Crested Wheat Grass, Fescue (except Meadow Fescue), Hop Clover, Ladino Clover, Lawn or Turf Grass Mixtures, Meadow Foxtail, Orchard Grass, Rape, Reed Canary Grass, Safflower, Strawberry Clover, Tall Oat Grass, Timothy and White Clover	4 ounces
Asparagus, Bent Grasses (<i>Agrostis spp.</i>), Blue Grasses (<i>Poa spp.</i>), Cardoon, Carrot, Chicory, Chives, Endive, Fowl Meadow Grass, Leek, Lettuce, Onion, Parsnip, Radish, Rampion, Redtop, Rough-Stalked Meadow Grass, Ruta- baga, Salsify, Swede, Turnip, Wood Meadow Grass	
Artichoke, Broccoli, Brussels Sprouts, Cabbage, Celeriac, Celery, Celtuce, Chervil, Collards, Corn Salad, Cress, Dandelion, Dill, Eggplant, Kale, Kohlrabi, Mustard, Okra, Parsley, Pepper, Sage, Savory, Sorrel, Spinach, Thyme, Tomato	2 ounces
	1 ounce
	½ ounce

Seeds Act—continued

Rhubarb, Water Cress	$\frac{1}{4}$ ounce
Cauliflower, Tobacco	$\frac{1}{8}$ ounce
Cantaloupe, Citron, Cucumbers, (except greenhouse forcing), Gherkin, Muskmelon, Pumpkin, Squash, Vegetable Marrow, Watermelon	400 seeds
Broad Beans and Runner Beans.....	200 seeds
Greenhouse-forcing Cucumber	25 seeds

Seed Testing

14. The methods to be used and the procedure to be followed in the testing of seed under the Act and these Regulations shall be as published from time to time by the Plant Products Division.

Variety Testing for Suspected Misrepresentation

15. (1) The testing for determining whether a variety is falsely represented under section 9 of the Act shall be conducted by a Plant Specialist who may be assigned for the purpose according to his qualifications in relation to the kind of seed to be tested.

(2) Such Plant Specialist shall be an Agrostologist, Agronomist, Cerealist, Field Husbandman, Horticulturist, or other properly qualified official of a recognized agricultural institution in Canada.

(3) The person whose seed, plant, or other product is to be tested for the purpose specified in subsection (1) shall be notified at least one week in advance of the starting of such test as to when and where the test is to be conducted, and the name and address of the Plant Specialist authorized to conduct the test.

(4) The results of such test as determined by the Plant Specialist shall be considered as final for the purpose of the Act and these Regulations.

Seed Crop Inspection

16. (1) Seed Crop inspections shall be confined to crops for the production of seed of the "Registered" "Certified" classes and special seed crops.

- (2) The crop inspection procedure shall be as follows:
 - (a) when for the production of "Registered Seed" the crop shall be inspected as prescribed by the Canadian Seed Growers' Association;
 - (b) when for the production of "Certified Seed" and other special seed crops, the inspection shall be done as prescribed by the Plant Products Division.
- (3) Every application for a seed crop inspection:
 - (a) shall be made on the form provided for the purpose and at least 30 days prior to the proper time for the inspection of the crop; (Copies of the said form may be obtained from any inspector).
 - (b) shall be made to the District Supervisor, Plant Products Division, in whose district the crop is to be inspected.
- (4) The inspection of a seed crop may be refused:
 - (a) when the application for such inspection is received too late by the District Supervisor for making satisfactory arrangements for the inspection; or

Seeds Act—continued

- (b) when, in the opinion of the District Supervisor, such inspection would not result in the economical production of an increased supply of improved seed.

Inspection and Sealing of Seed

17. (1) This section applies to the inspection and sealing of seed.

(2) Every application for the inspection of seed shall be made in writing to the District Supervisor, Plant Products Division, in whose district the seed is to be inspected.

(3) The applicant for such inspection shall furnish the necessary assistance and be responsible for the handling and correctly tagging and sealing of the bags or other containers, under supervision of the inspector.

(4) When the seed is in bags, there shall be securely attached to each bag of seed which passes inspection, an approved seed inspection certificate tag.

(5) When the seed is in bulk in a carlot and passes inspection, the car doors shall be sealed in the presence of an inspector and he shall attach securely an approved certificate tag to each railway car door seal; a Seed Inspection Certificate in duplicate shall be issued to the applicant who shall attach one copy to the bill of lading.

(6) Except as may be provided elsewhere in these Regulations, when a seed inspection certificate is issued on a carload of seed in bulk, the said certificate shall be invalid when the seed is repackaged and relabelled.

(7) Seed shall not be tagged or sealed by an Inspector as Registered or Certified until the Inspector is provided with,

- (a) in the case of presentation by the grower, the grower's statutory declaration that the seed was derived entirely from the particular crop covered by the crop registration certificate or seed crop certificate; or
- (b) in the case of presentation by a person other than the grower, the grower's statutory declaration referred to in paragraph (a) and a statutory declaration by the person presenting the seed that it has not become mixed or contaminated while in his possession.

Field Corn Grown in Canada

(not including Pop, Squaw, or Sweet Corn)

18. (1) In addition to any other requirements of the Act and these Regulations applicable to seed of field corn all such seed shall conform to the following requirements:

- (a) the term "Open Pollinated" shall apply only to named varieties of the approved list;
- (b) the term "Varietal Cross" shall apply only to the first generation of a cross between—
 - (i) two named varieties;
 - (ii) a named variety and an inbred line (top cross);
 - (iii) a named variety and a hybrid;
- (c) the term "Hybrid" shall apply only to the first generation of a cross between two or more inbred lines or their combinations including single crosses, double crosses and three way crosses.

Seeds Act—*continued*

(2) "Varietal Cross" and "Hybrid" seed of field corn shall be of registered grade only.

(3) "Open Pollinated" seed of field corn produced in Manitoba or Ontario shall be of registered grade or certified grade; such seed, when the latter, shall be produced from registered seed.

Detention of Seed

19. Any seed detained under authority of section 19 of the Act shall be subject to the following provisions:

- (a) the inspector shall attach an approved detention tag to at least one container of each lot of seed detained;
- (b) the inspector shall notify in writing the person or firm in possession of the seed at the time of detention and if the containers of the seed are labelled under sections 5 or 6 of the Act with the name of another person or firm, the inspector shall also notify such other person or firm in writing of the detention;
- (c) the inspector shall take an official sample of each lot of detained seed unless an official sample has already been taken of such seed;
- (d) no detained seed may be released or moved to any other premises or cleaned or changed in any manner, unless first authorized in writing by an Inspector.

Seed Importations

20. (1) An importer shall be deemed fully responsible for any seed which he imports with respect to complying with the provisions of the Act and these Regulations.

(2) The Collector of Customs at the port of entry shall—

- (a) forward in an approved container to the District Supervisor, Plant Products Division, in whose district the seed is to be imported a representative sample of such size as prescribed in subsection (11) of section 13 from each lot of each kind of seed listed in Schedule A and entered for importation and the required details regarding same; such sample shall be taken by or under the direction of the Collector of Customs;
- (b) at the expense of the importer, hold the seed in bond unless authorized by an Inspector to release it to the importer or deliver it under bond to the importer; when the latter, the amount of the said bond shall be the invoiced value of the seed plus any import duty and taxes.

(3) Unless authorized by an inspector, each lot of seed delivered under bond to an importer shall be kept separate and intact in the original containers and shall be returned to the Collector of Customs on demand; the said bond shall be forfeited to the Crown for failure to conform fully in these respects.

(4) An inspector may permit under his supervision or direction any lot of seed in bond or which has been delivered under bond, to be cleaned or otherwise treated, repackaged, marked, tagged or labelled, provided that any such seed or "rejected" quality or otherwise "not suitable for seeding in Canada" shall not be mixed with any other seed.

Seeds Act—continued

(5) When satisfied that any lot of bonded seed meets the requirements of the Act and these Regulations, the Inspector shall so advise the Collector of Customs who in turn may release the seed to the importer and shall cancel the bond thereon.

(6) When satisfied that any lot of bonded seed has failed to meet any provision of the Act or these Regulations after the importer has had sufficient time or has been unable to correct the same, or refuses to accept the seed, the inspector shall advise the Collector of Customs who in turn shall cause the seed to be deported, or permit it to be destroyed, under Customs supervision and shall cancel the bond thereon.

(7) The Collector of Customs shall notify the District Supervisor, Plant Products Division, whenever seed which has been sampled under these Regulations is moved from one port of entry to another before being released and as to the final disposition of each lot of seed entered for importation.

(8) Seed for cleaning or processing screenings or weed seeds, of any kind or species, shall not be imported into Canada unless authorized in writing by the Plant Products Division.

(9) When any lot of seed for importation contains weed seeds not listed in Schedule C its release from Customs shall be withheld until the said weed seeds are determined to be non-noxious.

(10) No seed shall be imported into Canada when its importation into any other country has been refused: provided that any such seed which was grown in Canada, may be returned to Canada.

(11) Reports of tests or grades on samples of imported seed taken by or under the direction of Collectors of Customs may be issued by the Plant Products Division to the importer when requested and the prescribed fees for such testing or grading are paid.

Red Clover and Alfalfa Importations

21. (1) In addition to any other Regulations that may apply, Red Clover and Alfalfa seed imported into Canada shall be stained with a colour to indicate its origin of production; such seed shall contain, in thorough mixture, stained seed of its kind and variety as follows:

(a) Red Clover seed or seed containing 10 per cent or more of red clover produced in—

- (i) Great Britain, one per cent black;
- (ii) the United States, one per cent methyl violet;
- (iii) New Zealand, Europe and Asia, except Italy and Turkestan, one per cent green;
- (iv) any other country or region, ten per cent red.

(b) Alfalfa seed or seed containing 10 per cent or more of alfalfa produced in—

- (i) any northern or north western State of the United States of America when of Grimm or similar variegated variety and satisfactory proof of this is furnished by the State Government, one per cent methyl violet;
- (ii) any other country, state or region ten per cent red.

(2) The colouring of the said seed shall be done by the consignor with a suitable dye before shipment to Canada or by the importer under the direction of the Collector of Customs.

Seeds Act—continued*The Importation of Seed of Varieties not Included in the List of Established Variety Names*

22. Seed or plants of varieties not eligible for sale in Canada but which are for seeding by the importer or for the production of seed for export may be imported subject to the following:

- (a) At the time of such importation, the importer shall furnish the Collector of Customs with a signed statement in triplicate, which statement shall be deemed to have the same force and effect as a sworn declaration, to the effect that—
 - (i) the seeds or plants being imported are for the use of the importer and not for sale;
 - (ii) the seeds of plants produced from the said seeds or plants will not be sold to any person in Canada and that their production, distribution and disposal will be as authorized by an inspector.
- (b) The Collector of Customs shall forward two copies of the said signed agreement of the importer to the District Supervisor, Plant Products Division, in whose district the seeds or plants are to be imported.
- (c) The further importation of seeds or plants may be refused any person who has failed to conform satisfactorily with these Regulations.

*Schedule of Fees for Services***23.** (1) Seed Crop Inspection.

Subject to subsections (2) and (3) the minimum fee shall be:

- (a) for hybrid corn, \$5.00 per farm visited and an additional fee of 50 cents per acre for any excess over five acres inspected;
- (b) for all other seed crops, \$2.00 per inspection visit and an additional fee of ten cents per acre for any excess over 20 acres inspected.

(2) The fee for a member of a boys and girls Farm Club organized under a Dominion or Provincial Government department shall be \$1.00 when the area inspected does not exceed five acres.

(3) The minimum fee for inspection of seed crops for disease shall be \$2.00 per inspection visit and an additional fee of 10 cents per acre for any excess over 20 acres inspected. This fee shall be additional to any fee prescribed elsewhere in this section.

24. (1) Seed Inspection.

The minimum fee shall be:

- (a) for barley, beans, buckwheat, corn, emmer, oats, peas, rye, soybeans, spelt and wheat..... 1 ct. per bushel;
- (b) for flax and millet..... 2 cts. per bushel;
- (c) for alfalfa, clovers and grasses 10 cts. per 100 lbs;
- (d) for root and vegetable seeds, except as provided in subsection (2) $\frac{1}{2}$ cent per pound;
- (e) for any other seed, the estimated cost of the service.

(2) When root and vegetable seed is inspected in containers other than packets, small cartons or other small packages, at an approved assembling point or cleaning plant, the fee shall be 20 cents per 100 pounds.

(3) The minimum fee shall be \$2.00 for each inspection visit.

Seeds Act—continued

(4) An additional charge of $\frac{1}{2}$ cent each shall be made for each tag and for each seal used.

25. Seed Testing.

The minimum fee per sample shall be:

- (a) for barley, beans, buckwheat, corn, emmer, flax, oats, peas, rye, soybeans, spelt, wheat and root and vegetable seeds.....75 cents;
- (b) for alfalfa, clovers, agricultural grasses and mixtures thereof \$1.00;
- (c) for lawn and turf grasses..... 1.50;
- (d) for lawn and turf grass mixtures..... 3.50;
- (e) for any other seed..... 1.00;
- (f) for a percentage pure seed test, except for grasses..... 50 cents

26. Fees for other certificates and reports.

- (a) The fee for a control sample certificate issued on a Customs or official sample shall be the amount prescribed in section 25 for the kind of seed;
- (b) The fee for a certificate of origin shall be 25 cents;
- (c) The fee for a certificate of weight shall be \$1.00 if the weight is checked when the seed is inspected, otherwise the fee shall be \$3.00;
- (d) A fee of \$1.00 for each grade of each variety of each kind of seed shall accompany the application for registration control numbers and the fee shall be retained by the Crown whether a registration control number is assigned or not;
- (e) The fee for each extra copy of a control sample certificate, a seed inspection certificate, a seed crop certificate, or a certificate of origin, shall be 25 cents.

27. (1) When the fee listed herein for any service is less than the estimated cost of that service, the fee may be the estimated cost of the service.

(2) The fee for any service not listed herein may be the estimated cost of the service.

28. Any service listed in these Regulations shall be withheld unless the fee for such service is paid subject to the following:

- (a) The fee for a seed crop inspection or seed inspection shall be paid at the time of inspection or within six months thereafter;
- (b) for any other service, the fee shall accompany the application for the service or be covered by an acceptable credit;
- (c) the application for any service and the payment of the fee should be made to the District Supervisor, Plant Products Division, in whose district the service is required;
- (d) any arrears of fees not paid within three months of the date when due shall disqualify the debtor for any further inspection or other service until such arrears are paid in full;
- (e) the fee accompanying the application for the service should be in the form of a postal note, money order or certified cheque made out to the order of "The Receiver General of Canada"; postage stamps are not acceptable as payment for this purpose.

Seeds Act—continued*Miscellaneous Regulations*

29. (1) Where any seed has been treated with poisonous material, its container shall have attached a conspicuous label reading:

“Poisonous to man and animals.

This seed has been treated with

.....

(Name of Poison)

for the control of

.....

(Name of pest or disease)”

(2) A name, mark or other designation introduced by an agricultural institution of recognized standing shall not be used unless authorized and the seed conforms in all respects with the seed for which such name, mark or other designation was introduced by the agricultural institution.

(3) No person shall use:

(a) a registration control number assigned to another person when marking or selling seed which he repackages or relabels;

(b) a certificate number assigned to another person, when marking or selling seed which he repackages, except as provided in subsection (6) of section 11.

(4) Any seed distributed under a contract of any kind, on commission or as a premium shall comply fully with the Act and these Regulations.

(5) When seed screenings are stored in the same premises as seed for sale, they shall be labelled “Screenings”.

(6) In the case of hay and pasture mixtures the combined quantity of “other crop seeds” that are not required to be marked on the container, tag or label under section 11 of these Regulations, shall not exceed 15 per cent by weight of the mixture.

JAMES G. GARDINER,

Minister of Agriculture.

10th September, 1949.

SCHEDULE A**KINDS OF CROP SEEDS TO WHICH THE ACT APPLIES**

Alfalfa—*Medicago sativa* L., *M. falcata* L.

Artichoke—*Cynara scolymus* L.

Asparagus—*Asparagus officinalis* L.

Barley—*Hordeum vulgare* L., *Hordeum distichon* L.

Bean—*Phaseolus vulgaris* L.

Beans, broad—*Vicia faba* L.

Beans, lima—*Phaseolus lunatus macrocarpus* Van Eseltine.

Beans, runner—*Phaseolus coccineus* L.

Beet—*Beta vulgaris* L.

Bird's-foot trefoil—*Lotus corniculatus* L.

Black medick—*Medicago lupulina* L.

Bluegrass, annual—*Poa annua* L.

Bluegrass, Canada—*Poa compressa* L.

Bluegrass, Kentucky—*Poa pratensis* L.

Broccoli—*Brassica oleracea botrytis* L.

Seeds Act—continued

Brown top (Colonial or P.E.I. Bent)—*Agrostis tenuis* Vasey.
 Brome, awnless—*Bromus inermis* Leyss.
 Brussels sprouts—*Brassica oleracea gemnifera* Zenker.
 Buckwheat, common—*Fagopyrum esculentum* (Moench.)
 Buckwheat, Tartarian—*Fagopyrum tartaricum* (L.) Gaertn.

Cabbage—*Brassica oleracea capitata* L.
 Cabbage, Chinese—*Brassica chinensis* L., *B. pekinensis* Rupt.
 Cantaloupe—*Cucumis melo* L.
 Cardoon—*Cynara cardunculus* L.
 Carrot (field and garden)—*Daucus carota* L.
 Cauliflower—*Brassica oleracea botrytis* L.
 Celeriac—*Apium graveolens rapaceum* D.C.
 Celery—*Apium graveolens* L.
 Celtuce—*Lactuca sativa* L.
 Chervil—*Chaerophyllum* spp.
 Chick Pea—*Cicer arietinum* L.
 Chicory (cultivated)—*Cichorium intybus* L.
 Chives—*Allium schoenoprasum* L.
 Citron—*Citrullis vulgaris* Schrad.
 Clover, alsike—*Trifolium hybridum* L.
 Clover, crimson—*Trifolium incarnatum* L.
 Clover, red—*Trifolium pratense* L.
 Clover, hop—*Trifolium dubium* Sibth., *Trifolium procumbens* L., *Trifolium agrarium* L.
 Clover, ladino—*Trifolium repens* L.
 Clover, strawberry—*Trifolium fragiferum* L.
 Clover, subterranean—*Trifolium subterraneum* L.
 Clover, sweet,—*Melilotus alba* Desr., *M. officinalis* (L.) Lam.
 Clover, white—*Trifolium repens* L.
 Collards—*Brassica oleracea acephala* D.C.
 Corn (field, squaw, sweet)—*Zea mays* L.
 Corn pop—*Zea mays everta* (Sturt.) Bailey.
 Cornsalad—*Valerianella locusta* L.
 Cowpea—*Vigna sinensis* (Torner) Savi.
 Creeping bent—*Agrostis palustris* Huds.
 Cress, garden—*Lepidium sativum* L.
 Cress, water—*Roripa nasturtium-aquaticum* (L.) Brit. and Rendle.
 Crested dog's tail—*Cynosurus cristatus* (L.) Gaertn.
 Crested wheat grass—*Agropyron cristatus* (L.) Gaertn.
 Cucumber—*Cucumis sativus* L.

Dandelion (cultivated)—*Taraxacum officinale* Weber.
 Dill—*Anethum graveolens* L.

Eggplant—*Solanum melongena* L.
 Emmer—*Triticum dicoccum* Schrank.
 Endive—*Cichorium endivia* L.

Fescue, Chewings—*Festuca rubra commutata* Gaud.
 Fescue, creeping red—*Festuca rubra genuina* Hack.
 Fescue, fine-leaved—*Festuca ovina tenuifolia* L.
 Fescue, hard—*Festuca ovina duriuscula* (L.) Koch.
 Fescue, meadow—*Festuca elatior* L.
 Fescue, red—*Festuca rubra* L.
 Fescue, sheep's—*Festuca ovina* L.

Seeds Act—continued

Fescue, various-leaved—*Festuca heterophylla* Lam.

Flax, oil and fibre—*Linum usitatissimum* L.

Fowl meadow grass—*Poa triflora* Gilib.

Gherkin—*Cucumis anguria* L.

Kale (borecole)—*Brassica oleracea acephala* D.C.

Kohlrabi—*Brassica oleracea caulorapa* D.C.

Leek—*Allium porrum* L.

Lentils—*Lens esculenta* Moench.

Lespedeza (cultivated)—*Lespedeza* spp. Michx.

Lettuce—*Lactuca sativa* L.

Lupine (field)—*Lupinus* spp. (other than ornamental.)

Mangel—*Beta vulgaris macrorhiza* L.

Meadow foxtail—*Alopecurus pratensis* L.

Millet, foxtail—*Setaria italica* (L.) Beauv.

Millet, Japanese—*Echinochloa crusgalli* (L.) Beauv. var., *frumentacea* (Roxb.) Wight.

Millet, pearl—*Pennisetum glaucum* (L.) B. Br.

Millet, proso—*Panicum miliaceum* L.

Muskmelon—*Cucumis melo* L.

Mustard (cultivated)—*Brassica alba* Boiss., *B. nigra* Koch., *B. juncea* (L.) Coss.

Mustard, spinach—*Brassica rapa perviridis* (L.) Bailey.

Oats—*Avena sativa* L., *Avena nuda* L.

Okra—*Hibiscus esculentus* L.

Onion—*Allium cepa* L.

Orchard grass—*Dactylis glomerata* L.

Parsley—*Petroselinum hortense* Hoffm.

Parsnip—*Pastinaca sativa* L.

Peas (field, canning and garden)—*Pisum sativum* L.

Pepper (cultivated)—*Capsicum* spp. L.

Pumpkin—*Cucurbita pepo* L.

Radish—*Raphanus sativus* L.

Rampion—*Campanula rapunculus* L.

Rape (forage and oil-seed)—*Brassica napus* L.

Red Top—*Agrostis alba* L.

Reed Canary grass—*Phalaris arundinacea* L.

Rhubarb—*Rheum rhaponticum* L.

Rough-stalked meadow grass—*Poa trivialis* L.

Rutabaga (swede)—*Brassica campestris napobrassica* D.C.

Rye—*Secale cereale* L.

Rye Grass, annual—*Lolium multiflorum* Lam.

Rye Grass, perennial—*Lolium perenne* L.

Safflower—*Carthamus tinctorius* L.

Sage—*Salvia officinalis* L.

Sainfoin—*Onobrychis viciifolia* Scop.

Salsify—*Tragopogon porrifolius* L.

Savory—*Satureja hortensis* L.

Slender wheat grass—*Agropyron trachycaulum* (Link.) Malte.

Sorghum—*Sorghum vulgare* Pers.

Sorrel (cultivated)—*Rumex acetosa* L.

Seeds Act—continued

Soybeans—*Glycine max* (L.) Merr.
 Spelt—*Triticum spelta* L.
 Spinach—*Spinacia oleracea* L.
 Spinach, New Zealand—*Tetragonia expansa* Thunb.
 Squash—*Cucurbita* spp.
 Sudan grass—*Sorghum vulgare sudanense* (Piper) Hitch.
 Sugar Beet—*Beta vulgaris* (L.) *saccharifera*.
 Sunflower (cultivated)—*Helianthus annuus* L.
 Swede (turnip)—*Brassica campestris napobrassica* D.C.
 Swiss Chard—*Beta vulgaris* L., var. *cicla* Moq.
 Tall oat grass—*Arrhenatherum elatius* (L.) Mert. and Koch.
 Thyme—*Thymus vulgaris* L.
 Timothy—*Phleum pratense* L.
 Tobacco—*Nicotiana tabacum* L.
 Tomato—*Lycopersicon esculentum* Mill.
 Turnip—*Brassica rapa* L.
 Vegetable marrow—*Cucurbita pepo* L.
 Velvet bent—*Agrostis canina* L.
 Vetches—*Vicia sativa* L., *V. villosa* Roth., *V. pannonica* Crantz.
 Vetch, kidney—*Anthyllis vulneraria* L.
 Watermelon—*Citrullis vulgaris* Schrad.
 Wheat, common—*Triticum aestivum* L.
 Wheat, durum—*Triticum durum* Desf.
 Wood meadow grass—*Poa nemoralis* L.
 Any other kind of seed as may be required.

SCHEDULE B

TABLES OF GRADE STANDARDS

TABLE 1

Applicable to Wheat.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per pound except where otherwise stated					Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	
	Primary	Primary plus Secondary				
Registered No. 1..	0	0	3	0.5	1	85
Registered No. 2..	0	1 per bus.	10	1	2	75
Registered No. 3..	0	1 per peck	10	2	2	65
Certified No. 1....	0	1 per peck	10	1	5	85
Certified No. 2....	0	2 per peck	15	2	10	75
No. 1 Seed.....	0	1	25	10	20	85
No. 2 Seed.....	1	3	50	25	30	75
No. 3 Seed.....	3	15	100	50	60	65

NOTE 1. Seed graded or sold under this Table in Manitoba, Saskatchewan, Alberta and British Columbia, shall be free from Tartarian Buckwheat (*Fagopyrum tartaricum* L.)
 2. Ergot (*Claviceps purpurea*) shall not be present in excess of 2 per peck in grade Registered No. 1 or 1 per pound in grades registered Nos. 2 and 3.

Seeds Act—continued

TABLE 2

Applicable to Barley, Buckwheat, Emmer, Lentil, Lupine, Oats, Rye, Sanfoin, Spelt and Vetches (except Kidney Vetch).

1	2	3	4	5	6	7	8
Grade Name	Maximum number of seeds per pound except where otherwise stated						Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Additional False Wild Oats allowed in Oats	Seeds of Other Crops or Species	Other Distinguishable Varieties	
	Primary	Primary plus Secondary					
Registered No. 1.	0	0	3	6	1	2	85
Registered No. 2.	0	1 per bus.	10	10	2	3	75
Registered No. 3.	0	1 per peck	10	10	2	3	65
Certified No. 1...	0	3 per peck	10	10	5	5	85
Certified No. 2...	0	6 per peck	20	10	10	10	75
No. 1 Seed.....	0	1(b)	25	10	100	25	85
No. 2 Seed.....	1	3(a)	50	10	150	50	75
No. 3 Seed.....	3	15	100	10	250	100	65

NOTE 1. There may be allowed under Column 3:

- (a) Six additional wild oats in No. 2 Seed.
- (b) One additional wild oats in No. 1 Seed Oats.
2. (a) Seed graded or sold under this Table in Manitoba, Saskatchewan, Alberta and British Columbia shall be free from Tartarian Buckwheat (*Fagopyrum tartaricum* L.)
- (b) Except as provided in Clause (a) above seed other than buckwheat graded or sold under this Table shall not contain more than 25, 50 and 75 seeds of buckwheat in No. 1, No. 2 and No. 3 seed respectively, and any such buckwheat shall be included in the total of "Other crop Seeds".
3. Ergot (*Claviceps purpurea*) shall not be present in excess of 2 per peck in grade Registered No. 1, or 1 per pound in grades Registered Nos. 2 and 3.

Seeds Act—continued

TABLE 3

Applicable to Beans, Chick Pea, Corn (Pop and Squaw), Cowpeas, Peas and Soybeans.

1	2	3	4	5	6	7	8
Grade Name	Maximum number of Seeds per pound					Minimum Percentage Germination	
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	Peas and Beans	Other Kinds
	Primary	Primary plus Secondary					
Registered No. 1.....	0	0	0	0	1	85	85
Registered No. 2.....	0	0	0	0	2	75	75
Registered No. 3.....	0	0	0	0	2	65	65
Certified No. 1.....	0	0	0	5	5	85	85
Certified No. 2.....	0	0	0	5	5	75	75
No. 1 Seed.....	0	0	1	5	15	80	85
No. 2 Seed.....	0	1	5	5	30	70	75
No. 3 Seed.....	1	5	10	10	50	60	65

NOTE. When garden Beans or garden Peas, sold ungraded subject to Section 6 of the Act, germinate less than 80%, the percentage of germination shall be stated on the container.

TABLE 4

Applicable to Fibre Flax.

1	2	3	4	5	6	7	8
Grade Name	Maximum number of Seeds per ounce					Minimum Percentage	
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	Pure Seed	Germination
	Primary	Primary plus Secondary					
Registered No. 1.....	0	0	3	0.5	0.3	98	90
Registered No. 2.....	0	0.5	5	1	0.5	97	75
Registered No. 3.....	0	1	10	2	0.5	95	65
Certified No. 1.....	0	2	10	5	1	98	90
Certified No. 2.....	0	3	15	10	2	95	75
No. 1 Seed.....	0	2	20	10	5	97	85
No. 2 Seed.....	1	5	35	15	25	95	75
No. 3 Seed.....	3	15	50	25	.....	95	65

Seeds Act—continued

TABLE 5

Applicable to Corn other than Pop and Squaw Corn.

1	2	3	4	5	6	7	8	
Class	Grade Name	Maximum number per pound			Maximum Percentage		Minimum Percentage Germination	
		Weed Seed	Seeds of Other Crops or Species	Kernels of other distinguishable Varieties	Moisture	By count, Kernels which do not conform to the size and shape marked (e.g. large flat)		
						Sweet Corn		Other Corn
Hybrids, varieties crosses and open pollinated varieties.	Registered No. 1.	0	0	2	13	10	4	90
	Registered No. 2.	0	0	3	13	10	4	80
	Registered No. 3.	0	0	4	13	10	4	70
Open pollinated varieties. . .	Certified No. 1. . .	0	0	4	13	10	5	90
	Certified No. 2. . .	0	0	8	13	10	5	80
Imported hybrids and varieties crosses.	No. 1 Seed.	0	0	2	13	10	4	90
	No. 2 Seed.	0	0	3	13	10	4	80
	No. 3 Seed.	0	0	4	13	10	4	70
General seeds of commerce. .	No. 1 Seed.	0	0	4	14	10	5	85
	No. 2 Seed.	0	0	8	14	10	5	75
	No. 3 Seed.	0	0	12	14	10	5	65

NOTE: When garden corn sold ungraded subject to Section 6 of the Act germinates less than 80%, the percentage of germination shall be stated on the container.

TABLE 6

Applicable to Oil Flax, Sorghum and Sudan Grass.

1	2	3	4	5	6	7	8
Grade Name	Maximum number of Seeds per ounce					Minimum Percentage	
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	Pure Seed in Oil Flax only	Germination
	Primary	Primary plus Secondary					
Registered No. 1.	0	0	3	0.5	0.3	98	85
Registered No. 2.	0	0.5	5	1	0.5	97	75
Registered No. 3.	0	1	10	2	0.5	95	65
Certified No. 1.	0	0.5	5	1	1	98	85
Certified No. 2.	0	1	10	2	2	95	75
No. 1 Seed.	0	1	10	2	5	97	85
No. 2 Seed.	0.5	3	25	5	15	95	75
No. 3 Seed.	2	10	50	10	.....	95	65

Seeds Act—continued

TABLE 7

Applicable to Sunflower.

1	2	3	4	5	6	7
Grade Name	Maximum number of Seeds per pound					Minimum Percentage Germination
	Weed Seeds	Seeds of Other Crops or Species	Purple Seeds	White Seeds	Other Distinguishable Varieties (total)	
Registered No. 1.....	0	0	1	1	4	90
Registered No. 2.....	0	1	3	3	9	80
Registered No. 3.....	0	3	5	5	15	70
Certified No. 1.....	0	1	3	3	9	85
Certified No. 2.....	0	3	5	5	15	75
No. 1 Seed.....	0	5	.....	.....	15	85
No. 2 Seed.....	0	5	.....	.....	30	75
No. 3 Seed.....	2	10	.....	.....	50	65

NOTE 1. Columns 4 and 5 apply to "Advance Sunflower" only.

2. Registered and Certified grades shall be practically free from sclerotia.

TABLE 8

Applicable to Oilseed Rape and Oilseed Safflower..

1	2	3	4	5	6
Grade Name	Maximum number of Seeds per ounce			Maximum percentage by weight of Seeds of other Crops or Species	Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds		
	Primary	Primary plus Secondary			
Certified No. 1.....	0	2	50	0.5	80
Certified No. 2.....	0	5	100	1	70
No. 1 Seed.....	0	5	100	0.5	80
No. 2 Seed.....	5	20	200	1	70
No. 3 Seed.....	20	80	300	2	60

NOTE: May contain up to 5 and 50 additional Indian Mustard Seeds in No. 2 Seed and No. 3 Seed respectively under Column 2.

Seeds Act—continued

TABLE 9

Applicable to Alfalfa, Lespedeza, Millets and Sweet Clover.

1	2	3	4	5	6	7	8
Grade Name	Maximum number of seeds per ounce except where otherwise stated						Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	Seeds of Other Crops or Species	Other distinguishable Varieties	
	Primary	Primary plus Secondary					
Registered No. 1.	0	1*	25	1	10	1	90
Registered No. 2.	0	2	50	1	50	2	80
Registered No. 3.	0	5	100	1	50	2	70
Certified No. 1...	0	2	50	2	50	5	80
Certified No. 2...	0	5	100	5	75	10	70
No. 1 Seed.....	0	5	100	50	2% by weight	2% by weight	80
No. 2 Seed.....	5	15	200	100	3% by weight	3% by weight	70
No. 3 Seed.....	10	50	300	Less than 1% by weight	Less than 5% by weight	.....	60

NOTE: 1. Total weed seeds under Column 4 shall include the Sweet Clover seeds under Column 5.
2. Column 5 does not apply to Sweet Clover seed graded under this table.
* 3. Registered No. 1 Alfalfa seed shall not contain seeds of Stinkweed (Thlaspi arvense L.)

TABLE 10

Applicable to Crimson, Red and Subterranean Clovers and Kidney Vetch.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per ounce except where otherwise stated					Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	Seeds of Other Crops or Species	
	Primary	Primary plus Secondary				
Registered No. 1.....	0	1	50	1	20	80
Registered No. 2.....	0	2	75	1	100	70
Registered No. 3.....	0	5	100	1	100	60
Certified No. 1.....	0	2	75	2	100	80
Certified No. 2.....	0	5	100	5	150	70
No. 1 Seed.....	0	5	100	50	2% by weight	80
No. 2 Seed.....	5	15	200	100	3% by weight	70
No. 3 Seed.....	10	50	300	Less than 1% by weight	Less than 5% by weight	60

NOTE 1. Total weed seeds under column 4 shall include the Sweet Clover Seeds under Column 5.
2. An additional 100 seeds of green foxtail in No. 2 Seed and No. 3 Seed may be allowed under Column 4.

Seeds Act—continued

TABLE 11

Applicable to Alsike, Hop, Ladino, Strawberry and White Clovers, Bird's foot Trefoil and Black Medick.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per ounce except where otherwise stated					Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	Seeds of Other Crops or Species	
	Primary	Primary plus Secondary				
Registered No. 1.....	0	1	25	1	20	80
Registered No. 2.....	0	2	50	1	100	70
Registered No. 3.....	0	5	100	1	100	60
Certified No. 1.....	0	2	50	2	100	80
Certified No. 2.....	0	5	100	5	150	70
No. 1 Seed.....	0	10	100	50	2% by weight	80
No. 2 Seed.....	5	30	200	100	3% by weight	70
No. 3 Seed.....	10	75	300	Less than 1% by weight	Less than 5% by weight	60

NOTE 1. Total weed seeds under column 4 shall include the Sweet Clover Seeds under Column 5.
 2. An additional 100 seeds of green foxtail in No. 2 Seed and No. 3 Seed may be allowed under Column 4.

TABLE 12

Applicable to Timothy.

1	2	3	4	5	6	7	8
Grade Name	Maximum number of seeds per ounce except where otherwise stated					Maximum percentage by count dehulled Seeds	Minimum percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	Seeds of other Crops or Species		
	Primary	Primary plus Secondary					
Registered No. 1.	0	1	25	1	20	35	80
Registered No. 2.	0	2	50	1	100	60	70
Registered No. 3.	0	5	100	1	100	100	60
Certified No. 1...	0	2	50	2	100	35	80
Certified No. 2...	0	5	100	5	150	60	70
No. 1 Seed.....	0	5	100	50	2% by weight	50	80
No. 2 Seed.....	5	20	200	100	Less than 5% by weight	75	70
No. 3 Seed.....	20	75	300	Less than 1% by weight	Less than 5% by weight	100	60

NOTE: Total weed seeds under Column 4 shall include the Sweet Clover Seeds under Column 5.

Seeds Act—continued

TABLE 13

Applicable to Brome Grass, Chewing's Fescue, Creeping Red Fescue, Crested Wheat Grass, Meadow Fescue, Meadow Foxtail, Orchard Grass, Reed Canary Grass, Annual Ryegrass (Italian and fluorescent types), Perennial Ryegrass, Red Fescue, Slender Wheat Grass and Tall Oat Grass.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per ounce, except where otherwise stated					Mini- mum Percent- age Pure Living Seed
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	Seeds of Other Crops or Species	
	Primary	Primary plus Secondary				
Registered No. 1.....	0	1	25	1	10	75
Registered No. 2.....	0	2	50	2	50	65
Registered No. 3.....	0	5	100	5	50	55
Certified No. 1.....	0	2	50	2	100	75
Certified No. 2.....	0	5	100	5	150	65
No. 1 Seed.....	0	5	100	50	2% by weight	75
No. 2 Seed.....	5	20	200	100	3% by weight	65
No. 3 Seed.....	10	50	200	Less than 1% by weight	Less than 5% by weight	55

NOTE 1. Perennial Ryegrass shall not contain more than 10% by count of fluorescent seeds.
2. Total Weed Seeds under Column 4 shall include the Sweet Clover seeds under column 5.

TABLE 14

Applicable to Annual Blue Grass, Canada Blue Grass, Creeping Bent, Velvet Bent, Brown Top (Colonial or P.E.I. Bent), Crested Dog's Tail, Fine Leaved Fescue, Hard Fescue, Various Leaved Fescue, Sheep's Fescue, Kentucky Blue Grass, Fowl Meadow Grass, Wood Meadow Grass, Rough Stalked Meadow Grass and Red Top.

1	2	3	4	5	6	7
Grade Name	Maximum number of noxious weed seeds per ounce		Maximum percentage by weight		Minimum percentage Pure Living Seed	
	Primary	Primary plus Secondary	Total Weed Seeds	Seeds of Other Crops or Species	Kentucky Blue and Canada Blue	Other Kinds
Registered No. 1.....	0	10	0.2	1	70	70
Registered No. 2.....	1	20	0.5	2	60	60
Registered No. 3.....	2	20	0.8	2	50	50
Certified No. 1.....	4	30	0.5	1	70	70
Certified No. 2.....	8	40	0.8	2	60	60
No. 1 Seed.....	4	50	0.5	3	65	70
No. 2 Seed.....	8	100	1.0	Less than 5%	55	60
No. 3 Seed.....	16	200	1.5	Less than 5%	50	50

Seeds Act—continued

TABLE 15

Applicable to Hay and Pasture Mixtures.

1	2	3	4	5	6
Grade Name	Maximum number of seeds per ounce except where otherwise stated				Minimum percentage Germination for each ingredient
	Noxious Weed Seeds		Total Weed Seeds	Sweet Clover	
	Primary	Primary plus Secondary			
No. 1 Mixture.....	0	10	100	50	75
No. 2 Mixture.....	10	30	200	100	65
No. 3 Mixture.....	15	75	Less than 1% by weight	Less than 1% by weight	55

- NOTE 1. Total weed seeds under Column 4 shall include the Sweet Clover Seeds under Column 5 except when the Sweet Clover constitutes 1% or more in the mixture.
2. Mixtures of grass seeds not designated by the sender as Lawn or Turf Grass Mixtures shall be graded under this Table.
3. No. 1 Mixture may contain 1 primary noxious weed seed per ounce when there is present singly or combined, 20% or more of the kinds listed in Table 14.
4. Column 5 does not apply to mixtures containing 1% or more of sweet clover seed.

TABLE 16

Applicable to Lawn and Turf Grass Mixtures.

PART A

1	2	3	4	5	6
Grade Name	Maximum number per ounce of Noxious Weed Seeds	Maximum percentage by weight of other weed seeds	Minimum Percentage		
			Pure Seed	Germination of each ingredient	Germination of Cheving's Fescue only
No. 1 Mixture.....	50	0.5	85	70	50
No. 2 Mixture.....	100	1.0	80	60	50
No. 3 Mixture.....	200	1.5	70	50	50

Seeds Act—continued

PART B

The following further standards shall apply to Lawn and Turf Grass Mixtures.
Such mixtures shall contain—

1	2	3	4	5	6	7
	Not less than	Not more than				
Grade Name	30 per cent by weight singly or combined of	50 per cent by weight of	35 per cent by weight of	30 per cent by weight singly or combined of	5 per cent by weight of	Percentage by weight of other kinds not specified
No. 1 Mixture.	Brown Top (Colonial or P.E.I. Bent)..... Chewing's Fescue..... Creeping Bent..... Creeping Red Fescue... Kentucky Blue Grass... Rough Stalked Meadow Grass..... Velvet Bent..... Wood Meadow Grass...	Canada Blue Grass	Red Top	Crested Dog's Tail Perennial Rye Grass Annual Rye Grass	White Clover	3% singly or 5% combined
No. 2 Mixture.	The same as for No. 1 Mixture except in Columns 5 and 7.			Fairway Crested Wheat Grass		5% singly or 10% combined
No. 3 Mixture.	The same as for No. 1 Mixture except in Columns 5 and 7.					

NOTE 1. Mixtures claimed to be for shady places shall contain not less than 40% by weight singly or combined of—Chewing's Fescue, Creeping Red Fescue, Rough Stalked Meadow Grass, Wood Meadow Grass.

2. Mixtures containing over 3% of Fairway Crested Wheat Grass shall not be graded higher than No. 2 Mixture.

TABLE 17

Applicable to Beet, Sugar Beet, Mangel and Swiss Chard.

1	2	3	4	5	6
Grade Name	Maximum number of seeds per pound				Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	
	Primary	Primary plus Secondary			
Registered No. 1.....	0	2	10	5	75
Registered No. 2.....	1	5	20	10	65
Registered No. 3.....	2	10	30	20	65
Certified No. 1.....	0	5	20	10	75
Certified No. 2.....	2	20	50	20	65
No. 1 Seed.....	1	10	20	10	75
No. 2 Seed.....	2	20	50	20	65
No. 3 Seed.....	2	30	100	30	65

NOTE: One head of Mayweed per pound in addition to "total weed seeds" may be allowed in sugar beet seed.

Seeds Act—continued

TABLE 18

Applicable to Cantaloupe, Citron, Cucumber, Gherkin, Muskmelon, Pumpkin, Squash, Vegetable Marrow, and Watermelon.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per ounce					Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	
	Primary	Primary plus Secondary				
Registered No. 1....	0	0	0	0	0	80
Registered No. 2....	0	0	0	0	0	75
Registered No. 3....	0	0	0	0	0	60
Certified No. 1.....	0	1	1	1	1	80
Certified No. 2.....	0	1	2	2	3	75
No. 1 Seed.....	0	0	1	1	2	80
No. 2 Seed.....	0	1	2	2	3	75
No. 3 Seed.....	0	2	5	5	6	60

NOTE: When sold ungraded subject to Section 6 of the Act, the percentage of germination, when less than 75%, shall be stated on the container.

TABLE 19

Applicable to Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Collards, Kale, (borecole) Kohlrabi, Mustard, Radish, Rape (except oilseed rape), Rutabaga, Spinach Mustard, Swede and Turnip.

1	2	3	4	5	6	7
Grade Name	Maximum number of seeds per ounce					Minimum Percentage Germination
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distinguishable Varieties	
	Primary	Primary plus Secondary				
Registered No. 1....	0	2	5	5	3	80
Registered No. 2....	1	5	15	10	10	70
Registered No. 3....	2	10	25	20	15	60
Certified No. 1.....	0	5	20	10	10	80
Certified No. 2.....	2	20	50	20	20	70
No. 1 Seed.....	1	10	30	10	10	80
No. 2 Seed.....	2	20	50	20	20	70
No. 3 Seed.....	2	50	100	30	30	60

NOTE: When sold ungraded under Section 6 of the Act, the percentage of germination, when less than 75%, shall be stated on the container.

Seeds Act—continued

TABLE 20

Applicable to Vegetables and Herbs listed in this Table.

1	2	3	4	5	6
Grade Name	Maximum number of seeds per ounce				
	Noxious Weed Seeds		Total Weed Seeds	Seeds of Other Crops or Species	Other Distin- guishable Varieties (a)
	Primary	Primary plus Secondary			
Registered No. 1.....	0	3	10	5	3
Registered No. 2.....	1	5	15	10	10
Registered No. 3.....	2	10	25	20	15
Certified No. 1.....	0	5	20	10	10
Certified No. 2.....	2	20	50	20	20
No. 1 Seed.....	1	10	25	10	10
No. 2 Seed.....	2	20	50	20	20
No. 3 Seed.....	2	50	100	30	30

NOTE (a) Under Column six "Other Distinguishable Varieties", there may be allowed three times the number in the case of white seeded in black seeded lettuce or vice versa, six times the number in the case of lettuce Cornell 456.

Minimum Percentage Germination

Artichoke.....	75	Cress, water.....	35	Rampion.....	55
Asparagus.....	75	Dandelion.....	55	Rhubarb.....	65
Cardoon.....	55	Dill.....	50	Sage.....	50
Carrot.....	55	Egg plant.....	65	Salsify.....	75
Celeriac.....	55	Endive.....	75	Savory.....	50
Celery.....	55	Leek.....	65	Sorrel.....	65
Celtuce.....	75	Lettuce.....	80	Spinach.....	65
Chervil.....	75	Okra.....	55	Spinach, New Zealand...	50
Chicory.....	65	Onion.....	75	Thyme.....	50
Chives.....	65	Parsley.....	65	Tobacco.....	75
Cornsalad.....	75	Parsnip.....	60	Tomato.....	75
Cress, garden.....	75	Pepper.....	65		

Seeds Act—continued

TABLE 21

Applicable to Dutch Sets and Multiplier Onions.

1	2	3	4
Grade Name	Size Square Mesh Screen	Variety and Colour	General Quality
No. 1 Seed....	Diameter $\frac{3}{8}$ " to $\frac{7}{8}$ " *	Not less than 98% one variety and colour.	Mature, well cured, sound, free from decay and dry. Practically free from tops, dirt, leaves or other foreign matter, from disease and moulds and from insect, mechanical, frost or other damage. Practically free from sprouted and soft bulbs when graded.
No. 2 Seed....	Diameter $\frac{3}{8}$ " to 1" *	Not less than 95% one variety and colour.	Mature, well cured, sound, free from decay and reasonably dry. Reasonably free from tops, dirt, leaves or other foreign matter, from disease and moulds and from insect, mechanical, frost or other damage. Reasonably free from soft bulbs and containing not more than 3% sprouts when graded.
No. 3 Seed....	Diameter $\frac{3}{8}$ " to 1" *	Not less than 80% one variety and colour	Reasonably sound, reasonably dry and reasonably free from tops, dirt, leaves, or other foreign matter, from decay, disease and moulds and from insect, mechanical, frost or other damage. Not more than 3% soft bulbs, 5% immature bulbs or 5% sprouts when graded.

* Note: The size standards under Column 2 shall not apply to Multiplier Onions.

Schedule C

CLASSIFICATION OF WEED SEEDS

Class 1. Prohibited Noxious Weed Seeds. Applicable under all tables of Schedule B.

Dodder—*Cuscuta* spp.
Field bindweed—*Convolvulus arvensis* L.
Hoary Cress—*Cardara draba* (L.) Desv.
Leafy spurge—*Euphorbia Esula* L.
Russian knapweed—*Centaurea repens* L.

Class 2. Primary Noxious Weed Seeds applicable under all tables of Schedule B.

Bladder campion—*Silene cucubalus* Wibal.
Couch grass—*Agropyron repens* (L.) Beauv.
Darnel—*Lolium* spp. other than *L. perenne* L. and *L. multiflorum* Lam.
Forked catchfly—*Silene dichotoma* Ehrh.
Johnson grass—*Sorghum halepense* (L.) Pers.
Ox-eye daisy—*Chrysanthemum leucanthemum* L.
Perennial sow thistle—*Sonchus arvensis* L.
Ragweed, great—*Ambrosia trifida* L.
Red Cockle—*Lychnis dioica* L.

Seeds Act—continued

White cockle—*Lychnis alba* Mill.

Wild mustard—*Brassica arvensis* (L.) Ktza., *B. juncea* (L.) Cosson
Brassica Kaber (DC) Wheeler var. *pinnatifida* (Stokes) Wheeler,
B. nigra (L.) Koch and *B. campestris* L.

Wild radish—*Raphanus raphanistrum* L.

Class 3. Secondary Noxious Weed Seeds applicable under all tables of Schedule B.

Ball mustard—*Neslia paniculata* (L.) Desv.

Blue weed—*Echium vulgare* L.

Canada thistle—*Cirsium arvense* (L.) Scop.

Chicory—*Cichorium intybus* L.

Dock—*Rumex crispus* L. and *Rumex obtusifolius* L.

Dog mustard—*Erucastrum gallicum* (Willd.) O. E. Schulz.

Downy brome—*Bromus tectorum* L.

False flax—*Camelina* spp.

False ragweed—*Iva xanthifolia* Nutt.

Field peppergrass—*Lepidium campestre* (L.) R. Br.

Flixweed—*Descurainia sophia* (L.) Wats.

Hoary alyssum—*Berteroa incana* (L.) D.C.

Night-flowering catchfly—*Silene noctiflora* L.

Poverty weed—*Iva axillaris* Pursh.

Purple cockle—*Agrostemma githago* L.

Ragweed, common—*Ambrosia artemisiifolia* L.

Ragweed, perennial—*Ambrosia coronopifolia* J. and G.

Ribgrass—*Plantago lanceolata*, L.

Russian thistle—*Salsola kali* L. var. *tenuifolia* G. F. W. May.

Stickseed—*Lappula echinata* Gilib.

Stinkweed—*Thlaspi arvense* L.

Toad flax—*Linaria vulgaris* Hill.

Tumbling mustard—*Sisymbrium altissimum* L.

Wild carrot—*Daucus carota* L.

Wild oat—*Avena fatua* L.

Winter cress or Yellow rocket—*Barbarea* spp.

Yellow cress—*Roripa palustris* (L.) Bess.

Cow Cockle—*Saponaria vaccaria* L.

Hare's ear mustard—*Conringia orientalis* (L.) Dumort.

Class 4. Secondary Noxious Weed Seeds applicable under Tables 13 and 15 of Schedule B.

The weed seeds named in Class 3 hereof and in addition:

Chickweed, common—*Stellaria media* L.

Chickweed, mouse-ear—*Cerastium vulgatum* L.

Common plantain—*Plantago major* L.

Crabgrass—*Digitaria* spp.

Dandelion—*Taraxacum* spp.

Ground Ivy—*Nepeta hederacea* Trev.

Heal-all—*Prunella vulgaris* L.

Knotweed—*Polygonum aviculare* L.

Pale plantain—*Plantago Rugelii* Dcne.

Panic grass—*Panicum* spp.

Seeds Act—continued

Class 5. Other Weed Seeds

- Amaranth—*Amaranthus* spp.
- American Pennyroyal—*Hedeoma pulegioides* (L.) Pers.
- Annual Bluegrass—*Poa annua* L.
- Aster—*Aster* spp.
- August flower—*Leontodon autumnalis* L.
- Avens—*Geum* spp.
- Barley, wild—*Hordeum jubatum* L.
- Barnyard grass—*Echinochloa crusgalli* (L.) Beauv.
- Beckmann's grass—*Beckmannia syzigachne* (Steud.) Fern.
- Bedstraw—*Galium* spp.
- Beggartick—*Bidens* spp.
- Bergamot—*Monarda* spp.
- Bird's foot—*Ornithopus* spp.
- Blue-eyed grass—*Sisyrinchium* spp.
- Blue field madder—*Scherardia arvensis* L.
- Brome grass—*Bromus* spp. other than *B. inermis* Leyss and *B. tectorum* L.
- Buckwheat, wild—*Polygonum convolvulus* L.
- Bugle weed—*Lycopus virginicus* L.
- Buttercup—*Ranunculus* spp.
- Canary grass—*Phalaris* spp. other than Reed canary grass (*P. arundinacea* L.)
- Catnip—*Nepeta cataria* L.
- Cat's ear—*Hypochaeris radicata* L.
- Chamomile—*Matricaria* spp.
- Chess—*Bromus secalinus* L.
- Chickweed—*Stellaria* and *Cerastium* spp.
- Cinquefoil—*Potentilla* spp.
- Clover—*Trifolium* other than those listed in Schedule A.
- Corn gromwell—*Lithospermum* spp.
- Corn salad—*Valerianella* spp.
- Crabgrass—*Digitaria* spp.
- Dandelion—*Taraxacum* spp.
- Dock—*Rumex* spp. other than *R. Acetosella* L., *R. crispus* L. and *R. obtusifolius* L.
- Dragonhead, American—*Draco cephalum parviflorum* Nutt.
- Evening primrose—*Oenothera* spp. L.
- Eyebright—*Euphrasia* spp.
- False wild oat—*Avena sativa* mut, fatuoid Huskins and Fryer
- Fleabane—*Erigeron* spp.
- Forget-me-not—*Myosotis* spp.
- Foxtail, green—*Setaria viridis* (L.) Beauv.
- Foxtail, yellow—*Setaria lutescens* (Weigel) F. T. Hubb.
- Foxtail grass—*Alopecurus* spp. other than *A. pratensis* L.
- Gaillardia—*Gaillardia* spp.
- Gaura—*Gaura* spp.
- Gentian—*Gentiana* spp.
- Geranium—*Geranium* spp.
- Goldenrod—*Solidago* spp.
- Ground cherry—*Physalis* spp.
- Groundsel—*Senecio* spp.
- Gumweed—*Grindelia* spp.

Seeds Act—*continued*

- Hair grass—*Aira* and *Deschampsia* spp.
 Hawk's beard—*Crepis* spp.
 Hawkweed—*Hieracacium* spp.
 Heal-all—*Prunella vulgaris* L.
 Hedge bindweed—*Convolvulus sepium* L.
 Hedge nettle—*Strachy palustris* L.
 Hemp nettle—*Galeopsis tetrahit* L.
 Hyssop—*Agastache* spp.
 Knotweed—*Polygonum aviculare* L. and other *Polygonum* spp.
 Lady's thumb—*Polygonum persicaria* L. and *P. lapathifolium* L.
 Lamb's quarters—*Chenopodium* spp.
 Licorice, wild—*Glycyrrhiza lepidota* (Nutt.) Pursh
 Loosestrife—*Lythrum* spp.
 Lupine, wild—*Lupinous* spp.
 Lyme grass—*Elymus* spp.
 Mallow—*Malva* spp.
 Manna grass—*Glyceria* spp.
 Marsh elder—*Iva* spp. other than *I. axillaris* and *I. xanthifolia*
 Mayweed—*Anthenis* spp.
 Meadow rue—*Thalictrum* spp.
 Milk vetch—*Astragalus* spp.
 Mint, wild—*Mentha* spp.
 Motherwort—*Leonurus cardiaca* L.
 Mustard, hedge—*Sisymbrium officinale* (L.) Scop.
 Mustard, tansy—*Descurainia* spp. other than *D. sophia*.
 Mustard, tower—*Arabis* spp.
 Mustard, wormseed—*Erysimum cheiranthoides* L.
 Nipple-wort—*Lapsana communis* L.
 Orach—*Atriplex* spp.
 Ox-tongue—*Picris* spp.
 Panic grass—*Panicum* spp.
 Paspalum grass —*Paspalum* spp.
 Peppergrass—*Lepidium* spp. other than *L. Campestre* (L.) R. Br.
 Phlox—*Phlox* spp.
 Plantain—*Plantago* spp. other than *P. Lanceolata* L.
 Poppy—*Papaver* spp.
 Prickly lettuce—*Lactuca scariola* L.
 Purslane—*Portulaca oleracea* L.
 Rat's-tail fescue—*Festuca myuros* L.
 Rocket—*Eruca sativa* Lam.
 Rough-hair grass—*Agrostis hyemalis* (Walt.) BSP.
 Rush—*Juncus*, *Eleocharis* and *Luzula* spp.
 Rush grass—*Sporobolus* spp.
 Russian pigweed—*Axyris amarantoides* L.
 Sandwort—*Arenaria* spp.
 Sand Spurrey—*Spergularia* spp.
 Scarlet pimpernel—*Anagallis arvensis* L.
 Sedge—*Cyperaceae* spp.
 Sheep sorrel—*Rumex acetosella* L.
 Shepherd's purse—*Capsella bursa-pastoris* L.

Seeds Act—concluded

Sleepy catchfly—*Silene antirrhina* L.
 Sow thistle, annual—*Sonchus oleraceus* L.
 Sow-thistle, spiny-leaved—*Sonchus asper* (L.) Hill
 Spear grass—*Stipa* spp.
 Speedwell—*Veronica* spp.
 Spider flower—*Cleome* spp.
 Spiny Sida—*Sida spinosa* L.
 Spurge—*Euphorbia* spp., other than *E. Esula* L.
 Spurrey—*Spergula arvensis* L.
 St. John's wort—*Hypericum* spp.
 Star Thistle—*Centaurea* spp. other than *C. repens* L.
 Sunflower—*Heliathus* spp. other than *H. annus* L.
 Sweet clover—*Melilotus* spp.
 Sweet grass—*Hierochloe odorata* (L.) Beauv.
 Tarweed—*Madia* spp. (See Gumweed)
 Thistle—*Cirsium* spp. other than *C. Arvense* L. Scop.
 Three-seeded mercury—*Acalypha* spp.
 Velvet grass—*Holcus lanatus* L.
 Velvet leaf—*Abutilon theophrasti medic.*
 Vernal grass—*Anthoxanthum* spp.
 Vervain—*Verbena* spp.
 Vetch, wild—*Vicia* spp. other than those listed in Schedule A.
 Wallflower—*Erysimum* spp. other than *E. cheiranthoides* L.
 Water hemlock—*Cicuta* spp.
 Wheat grass—*Agropyron* spp. other than *A. repens* (L.) Beauv.
 A. cristatum (L.) Gaertn., and *A. trachycaulum* (Link.) Malte
 Whitlow grass—*Draba* spp.
 Wild oat grass—*Danthonia* spp.
 Wild rose—*Rosa* spp.
 Wolfberry—*Symphoricarpos occidentalis* Hook.
 Wood sorrel—*Oxalis* spp. L.
 Yarrow—*Achillea millefolium* L.
 Yellow daisy—*Rudbeckia hirta* L.
 Any other weed.

SERVICE GRANTS

See WAR SERVICE GRANTS ACT.

SHELLFISH

See FISHERIES ACT, 1932.

SHELLFISH, CANNED

See FISHERIES ACT, 1932; FISH INSPECTION ACT; MEAT AND CANNED FOODS ACT.

SHIPPING

See also CUSTOMS ACT (Coastwise and Foreign Shipping Regulations; Regulations respecting Hovering); CUSTOMS AND FISHERIES PROTECTION ACT; LIVE STOCK SHIPPING ACT; MARITIME (Canadian Maritime Commission Act); MERCHANT SEAMEN COMPENSATION ACT; PILOTAGE BY-LAWS; VETERANS (Department of Veterans Affairs Act—Merchant Seamen Vocational Training Order).

CANADA SHIPPING ACT, 1934. (1934, c. 44)

1. *Protection of lightships, buoys, etc.*
2. *Ships' names.*
3. *Fees on examination of plans.*
4. *Motor engineer certificates.*
5. *Helm or steering orders.*
6. *Classification of home-trade and inland voyages.*
7. *Methods of computing engine nominal horse-power.*
8. *Life saving appliances.*
9. *Fire-extinguishing equipment.*
10. *Timber deck cargoes.*
11. *Regattas and marine parades.*
12. *Safety Convention certificates.*
13. *Sorel—buoyage and anchorage dues.*
14. *Inspection certificates for ships other than Safety Convention ships.*
15. *Speed of motor vessels.*
16. *Subdivisions and pumping arrangements—inland passenger ships.*
17. *Watertight doors and other appliances.*
18. *Registration of Government ships.*
19. *Inspection of non-passenger steamships.*
20. *Fees—inspection of steamships.*
21. *Dangerous goods and explosives.*
22. *International rules of the road.*
23. *Examination of Masters and Mates—foreign going.*
24. *Radio—ship stations Part I.*
25. *Radio—ship stations Part II.*
26. *Grain cargoes—loading, etc.*
27. *Public harbours in Canada.*
28. *Protection of workers against accident.*
29. *First-aid boxes or cupboards.*
30. *Examination of engineers.*
31. *Inspection of boilers and machinery.*
32. *Inspection of classed ships.*
33. *Examination of Masters and Mates—home trade.*
34. *Load line rules—inland voyages.*
35. *Load line rules—international and coastal voyages.*
36. *Inspection of boilers—not used for propelling purposes.*
37. *Canadian distressed seamen.*
38. *Rules of the road for the Great Lakes.*
39. *River St. Lawrence from Father Point to Montreal.*
40. *Fees—tonnage measurement of ships.*
41. *Pilotage by-laws (note).*
42. *Port Warden's Fees:*
 - (1) Churchill
 - (2) Port Arthur
 - (3) Fort William
 - (4) Yarmouth
 - (5) Prince Rupert
 - (6) Victoria
 - (7) Vancouver
 - (8) New Westminster
 - (9) Halifax
 - (10) Three Rivers
 - (11) St. Andrews
 - (12) Pugwash
 - (13) Charlottetown, Sydney and Parsboro
 - (14) Dalhousie
 - (15) Louisburg
 - (16) Pictou
 - (17) Sorel
 - (18) Saint John

Canada Shipping Act—continued

1. Regulations for the protection of lightships, buoys, beacons and floating lights

P.C. 1208

AT THE GOVERNMENT HOUSE AT OTTAWA

The 20th day of May, 1907.

PRESENT:

HIS EXCELLENCY THE ADMINISTRATOR OF THE GOVERNOR IN COUNCIL

The Administrator in Council under the provisions of sections 839 and 840 of the Canada Shipping Act, chapter 113 of the Revised Statutes of Canada, 1906, is pleased to order and it is hereby ordered that the following regulations for the protection of lightships, buoys, beacons and floating lights be adopted.

1. Any person who wilfully, or negligently, injures any lightship, buoy, beacon or floating light, or who removes, alters or destroys the same, or who causes, or permits any vessel or tow under his control to ride by, make fast to or run foul of any such aforesaid aid to navigation, shall be liable to a fine not exceeding \$200.00 for each offence.

2. Any person who, through unavoidable accident, or otherwise, has run down, dragged from its position or in any way injured any lightship, buoy, beacon or floating light, shall, as soon as practicable, give notice of the accident to the Customs Officer at the nearest port. Failure to give such notice shall be punishable with a fine not exceeding \$50.00 for each offence.

N. A. ROBERTSON,
Clerk of the Privy Council.

2. Ships' names

P.C. 2161

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY the sixteenth day of October, 1908.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, under the provisions of section 2, of chapter 65, 7-8 Edward VII, is pleased to Order that the attached Regulations relating to Ships' names shall be and the same are hereby approved.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued

CANADA SHIPPING ACT, SHIPS' NAMES

1. Any person who proposes to make application for the registry of a British ship, in Canada, shall give notice in writing of the proposed name of the ship to the Registrar of Shipping at the intended port of registry at least fourteen days before the date on which it is contemplated to effect the registry.

2. The Registrar at that port shall transmit the notice to the Deputy Minister of Marine and Fisheries.

3. If the proposed name does not appear already as the name of a registered British ship, or if it is not a name so similar to that of a registered British ship as to be calculated to deceive, the Deputy Minister of Marine and Fisheries* shall issue a certificate to that effect to the Registrar at the port at which the ship is to be registered, and the ship shall be registered under that name provided all requirements for registry have been duly complied with.

4. If the proposed name is found to be already the name of a registered British ship or so similar as to be calculated to deceive, the Deputy Minister of Marine and Fisheries may refuse the registry of the ship by that name and shall intimate his decision to the Registrar at the intended port of registry and to the applicant for registry.

* NOTE: *Now the Deputy Minister of Transport.*

3. Scale of fees—Examination of plans of hulls, machinery, etc.

P.C. 1237

AT THE GOVERNMENT HOUSE AT OTTAWA

MONDAY, the 31st day of May, 1920.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Marine and Fisheries and under the provisions of paragraph (h) added to section 578 of chapter 113, Revised Statutes of Canada, 1906, at the present session of Parliament, is pleased to fix and doth hereby fix the attached schedule of fees for the examination of plans of the hulls, boilers and machinery and equipment of steamboats, for the inspection of steamboats, their machinery and equipment during construction and for such like examinations or inspections in connection with the Steamboat Inspection Service; such fees to be payable to the Department of Marine and Fisheries by the person making application for such examination or inspection and to accompany the application for examination or inspection.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued

Scale of Fees for examining Plans of the Hulls, Machinery and Equipment of Steamships, for the Inspection of Steamships, their Machinery and Equipment during construction and for such like Examinations or Inspections.

1. For the examinations of plans or designs of the following:—

(a) Construction plans of new steamships each	\$25 00
(b) Boilers, main and auxiliary, each	25 00
(c) Engines or parts thereof, each	25 00
(d) Safety valves, boiler fittings or other marine machinery or parts thereof, each set	25 00
(e) Lifeboats, wooden and metallic, each	15 00
(f) Life rafts and buoyant apparatus, each	5 00
(g) Lifejackets and lifebuoys, each	5 00

The above fees include the issue of a certificate of approval by the Board of Steamship Inspection and the affixing of a stamp certifying to this effect, to the plan or design submitted.

2. For inspection by an officer of the Steamship Inspection Branch of:

(a) Ships under construction	\$25 00
(b) Boilers and engines under construction	25 00
(c) Lifeboats under construction at a builder's yard	5 00
(d) Lifejackets at a manufacturer's plant (including stamping as "approved") per 100	5 00
(e) Lifebuoys at manufacturers' plant (including stamp- ing as "approved") each	0 25

The fees for items (a) and (b) include five visits and in the cases of item (c) two visits to the manufacturers' plant and the necessary stamping by the inspection officer of the material examined.

3. Inspection of boiler plate, shafting, castings and other material entering into the construction of marine machinery and not covered by paragraphs 1 and 2:—

each visit to manufacturers' plant..... \$ 5 00

4. For the examination of plans, or inspections made and not covered as above, fees in proportion to the service rendered will be charged.

4. Regulations respecting the issue of motor engineer certificates

P.C. 1190

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 11th day of July, 1924.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Marine and Fisheries and in accordance with the provisions of section 578 of the Canada Shipping Act, chapter 113, Revised Statutes of Canada, 1906, is pleased to make the attached Regulations, which have been passed by the Board of Steamship Inspection, relating

Canada Shipping Act—*continued*

to the issue of certificates of competency to engineers to take charge of the machinery of vessels propelled by internal combustion engines, or by steam engines with flash boilers, or by electricity, such certificates to be known as "Motor Engineer Certificates", and the same are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RELATING TO THE ISSUE OF CERTIFICATES OF COMPETENCY TO
ENGINEERS TO TAKE CHARGE OF THE MACHINERY OF VESSELS PROPELLED
BY INTERNAL COMBUSTION ENGINES, OR BY STEAM ENGINES WITH
FLASH BOILERS, OR BY ELECTRICITY, SUCH CERTIFICATES TO
BE KNOWN AS "MOTOR ENGINEER CERTIFICATES"

1. In these regulations:—

- (a) Motor ship means a steamboat propelled by internal combustion engines or by steam engines obtaining steam from boilers of the flash type, where in the opinion of the Board of Steamship Inspection the propelling machinery is of the motor type, or by electric motors;
- (b) Motor engineer means a person possessed of a valid certificate issued in accordance with these regulations;
- (c) Sea-going motor ship means a motor ship making a voyage or trip to sea from any port or place in Canada to any other port or place except:—
 - (1) A voyage or trip from any port or place on the east coast of Canada to any port or place on the east coast of the North American continent between Cape Chidley in Canada and the port of Charleston in the state of South Carolina, including Newfoundland and the islands of St. Pierre and Miquelon.
 - (2) A voyage or trip from any port or place on the west coast of Canada to any port or place on the west coast of the North American continent between Cape Spencer in Alaska and the port of San Diego in the state of California.
 - (3) A voyage in the inland waters of Canada as defined in Part II of the Canada Shipping Act.
- (d) The expression "brake horse power" shall have its usual scientific application, but generally speaking the brake horse power as claimed by the makers of any internal combustion engine or motor may be accepted as the brake horse power of that engine or motor for the purpose of these regulations unless there is good reason to believe that the brake horse power so claimed is not a proper measure of the power of the motor, when the brake horse power shall be decided by the Board of Steamship Inspection.

2. Motor engineers shall be classified as:—

First class motor engineers;
Second class motor engineers;
Third class motor engineers;
Fourth class motor engineers.

- 3. (a) A first class motor engineer may act as chief or only engineer in any motor ship.

Canada Shipping Act—continued

- (b) A second class motor engineer may act as chief or only engineer in any freight motor ship, or in any other motor ship except a sea-going passenger motor ship of more than 560 brake horse power.
- (c) A third class motor engineer may act as chief or only engineer in any passenger motor ship of not more than 250 brake horse power or in any motor ship of not more than 420 brake horse power, provided that in either case the ship is not a sea-going motor ship as defined above.
- (d) A fourth class motor engineer may act as engineer in charge of a watch in any motor ship except a sea-going passenger motor ship of more than 560 brake horse power, but shall not act as chief or only engineer in any motor ship requiring certificated engineers under Part VII of the Canada Shipping Act.

4. Where apprenticeship service or service as a journeyman mechanic is claimed as qualifying service by a candidate for a motor engineer certificate the candidate during such apprenticeship or period of journeyman service, shall have been engaged on the making or repairing of steam or internal combustion engines, in such a capacity as would be recognized as affording useful training for a marine engineer.

Not less than 2 years of this period shall have been devoted to the fitting, erecting or repairing of engines of suitable size, either in the works or outside. The remaining time may have been spent, (1) on work of this nature; (2) on work in other branches of the trade, to the satisfaction of the Board of Steamship Inspection; and (3) at a technical school approved by the Board of Steamship Inspection, but in no case will time spent at a technical school in lieu of apprenticeship be allowed to count as being equivalent to more than 18 months apprenticeship.

5. No person shall be entitled to a motor engineer certificate of any class unless he is at least 21 years of age.

6. A candidate for a fourth class motor engineer certificate must have the following qualifications:—

- (a) He shall have served an apprenticeship of not less than 36 months in an engine shop, or, if he has not served such an apprenticeship, he shall have been employed for not less than 36 months as a journeyman mechanic in an engine shop; or
- (b) He shall have served at least 36 months in the engine room of a motor ship as engineer on watch; or
- (c) He shall have served not less than 36 months as oiler on the watch in the engine room of a motor ship of not less than 170 brake horse power.
- (d) He shall be able to read, and shall write a legible hand.
- (e) He shall be able to give a clear explanation of the general principles on which oil, gas or other internal combustion engines work, including methods of ignition.
- (f) He shall be familiar with the various methods of supplying air to the cylinders.
- (g) He shall understand the construction and operation of the apparatus used for carbureting, atomizing, or gasifying the fuel, the construction and operation of circulating pumps and other auxiliary machinery required in the operation of motor engines.

Canada Shipping Act—continued

- (h) He shall understand the use of pressure gauges, thermometers, etc., used in the engine room.
- (i) He shall understand the nature of the risks due to leakage of oil, formation of oil vapour, etc., and the means to guard against explosions or fire therefrom.

7. A candidate for a third class motor engineer certificate must have the following:—

- (a) He shall have served an apprenticeship of not less than 36 months in an engine shop, or if he has not served such an apprenticeship he shall have been employed for not less than 36 months as a journeyman mechanic in an engine shop, and in either case, he shall have also served 12 months as engineer on the watch in the engine room of a motor ship of not less than 30 brake horse power; or
- (b) He shall have served not less than 48 months as engineer on the watch in the engine room of a motor ship of not less than 30 brake horse power, or 36 months as engineer on the watch in a motor ship of not less than 170 brake horse power.
- (c) He shall be able to read, and shall write a legible hand, and shall be able to work simple problems involving addition, subtraction, division, multiplication, and the use of fractions and decimals.
- (d) He shall have a more extended knowledge of the subjects covered by paragraphs (e), (f), (g), (h) and (i), as required for fourth class engineer certificates.
- (e) He shall be able to describe the construction of the various parts of an internal combustion engine, and its auxiliaries, and the methods of repairing them in case of breakdown, and he shall understand the method of lining the engine, setting cams, adjusting valves, etc., the cause of any derangements and the means of remedying them.

8. A candidate for a second class motor engineer certificate must have the following qualifications:—

- (a) He shall have served an apprenticeship of not less than 48 months in an engine shop, or if he has not served such an apprenticeship, he shall have been employed for not less than 48 months as a journeyman mechanic in an engine shop.
- (b) If the total period of the candidate's workshop service, as calculated in accordance with these regulations, is less than 48 months, he may make up the deficiency by service at sea on day work or on regular watch on the main propelling machinery in steamships of not less than 66 nominal horse power where the propelling machinery is ordinary steam engines, and/or in motor ships of 373 brake horse power—such service to be accepted in the following ratio:—

- * (1) Three months service in sea-going ships or in ships making voyages of more than 300 miles between ports of call to be taken as equivalent to two months workshop service.
- * (2) Nine months service in ships which are not sea-going ships, but which ply beyond the limits of sheltered waters on voyages not in excess of 300 miles between ports of call to be taken as equivalent to four months workshop service.

*Where the route of a vessel is such as to be partly in open water and partly in passages, or straits, or rivers not exceeding five miles in width, the entrance to and exit from such passages, straits or rivers shall be deemed to be ports of call.

Canada Shipping Act—continued

- (3) No day work at sea, performed before the age of 21 years, will be accepted.
- (c) In addition to the 48 months workshop service or the alternative sea service, a candidate must have served at sea for at least 18 months in sea-going steamships as engineer on regular watch on the main propelling machinery of steamships of not less than 66 nominal horse power where the propelling machinery is ordinary steam engines, and/or 373 brake horse power where the propelling machinery is internal combustion engines, but two-thirds of the time must have been served in ships propelled by internal combustion engines. Time served other than in sea-going ships is to be reckoned at two-thirds of the time similarly served in sea-going steamships, provided these ships are employed beyond the limits of sheltered waters.

9. The candidate is required:—

- (a) To write legibly, spell correctly, and express himself, generally, in creditable English, or French.
- (b) To show sufficient knowledge of the metric system, etc., and of mathematics, for dealing successively with simple problems relating to mechanical principles, beams, safety and relief valves, consumption of fuel and stores, capacities of bunkers, tanks, etc., speed of vessels, strength of pipes and receivers subjected to internal pressure, stresses in shafting and other parts of the machinery, etc.
- (c) To be familiar with the physical characteristics of the metals and other materials commonly used by sea-going engineers.
- (d) To have a creditable knowledge of the facts relating to steam, heat, combustion, and the formation of smoke.
- (e) To understand the use, construction and principles involved in the action of the pressure gauge, thermometer, barometer, salinometer, and other meters commonly used by engineers on board ship.
- (f) To be able to state the causes, effects, and usual remedies for incrustation and corrosion.
- (g) To know how to make good the results to the machinery of ordinary wear and tear; how to test the fairness of shafting; how to correct defects due to corrosion, flaws or accident; and how a temporary or permanent repair could be effected in the event of derangement or total breakdown.
- (h) To understand the construction of centrifugal, bucket and force pumps, the principles on which they act, and the general requirements concerning bilge and ballast pumping systems.
- (i) To understand the construction and working of steering-engines and gears, electric light engines and dynamos, electric motors, refrigerating machinery, hydraulic machinery, and such internal combustion engines as are used to drive ships' launches, emergency and auxiliary machinery on board ship.
- (j) To be able to apply the indicator, calculate the mean pressure and horse power, and understand, generally, the fluctuation of pressure in the cylinder as shown by the diagrams obtained.

Canada Shipping Act—continued

- (k) To have a fair knowledge of the rudiments of projection, and be able to make a dimensioned working drawing of some simple part of the machinery with which he ought to be familiar, or to complete and develop a given example.
- (l) To be able to give a clear explanation of the principles on which oil, gas, or other internal combustion engines work, including the methods of ignition; to point out the difference between them, and to show, by means of sketches and otherwise, that he understands the details of the construction of those in general use.
- (m) To be familiar with the various methods of supplying air and fuel to the cylinders of engines of different types; the construction of the apparatus for carbureting, atomizing or gasifying the fuel; the means of cooling the cylinders, pistons, etc., and the construction and working of air compressors.
- (n) To have a satisfactory knowledge of the methods of constructing marine internal combustion engines, as used in the workshops, the processes to which the several parts are submitted, or which are incidental to their manufacture; and the methods employed in fitting the machinery on board ship.
- (o) To know what attention is required to be paid to the various parts of machinery; and to understand the use and management of the different valves, pipes and connections.
- (p) To be able to state and describe the chief causes which make the engines difficult to start, and to explain how he would proceed to remedy any defects arising therefrom; also to show that he understands the mechanism of the starting and reversing arrangements, and is competent to deal with any defects therein.
- (q) To be able to explain the principle, construction and arrangement of primary and secondary batteries, and induction coils, so far as is necessary for the efficient management of an oil engine.
- (r) To possess a good working knowledge of the construction and management of auxiliary steam boilers and machinery.
- (s) To be familiar with the nature and properties of the various oils, etc., generally used in internal combustion engines, and to understand what is meant by "flash" point; also to have a knowledge of the explosive properties of the gas or vapour given off by these oils, etc., when mixed with a definite quantity of air, and to be thoroughly conversant with the danger of exposing a naked light to such gas or vapour, or of allowing any leakage from the oil tanks, gas producers, pipes, vapourizers etc., particularly into the vessel's bilges and other unventilated spaces.
- (t) To understand thoroughly the precautions to be taken against fire or explosion from oil or gas, and how to deal with fire should it break out; also to be familiar with the action of wire gauze diaphragms, when placed in pipes and connections to oil tanks, etc., for the purpose of preventing the explosion or ignition of the oil vapour therein.

10. A candidate for a first class motor engineer certificate must not be less than $22\frac{1}{2}$ years of age, and must have the following qualifications:—

- (a) He shall have served at sea in sea-going steamships for at least 18 months on regular watch on the main propelling machinery as

Canada Shipping Act—continued

senior engineer in charge of the whole watch, or shall have served at sea, other than in sea-going ships, for 27 months as first engineer, or 36 months as second engineer, or 45 months as third or fourth engineer, being senior engineer in charge of the whole watch on the main propelling machinery, but such qualifying service must have been performed in ships employed beyond the limits of sheltered waters.

- (b) Subject to the provisions of the next paragraph (c), the whole of the required period of qualifying service must have been performed while in possession of a second class motor engineer certificate, and it must have been performed in steamships of not less than 99 nominal horse power where the propelling machinery is ordinary steam engines, and/or 560 brake horse power where the propelling machinery is internal combustion engines, but at least two thirds of the required service must have been in motor ships.
- (c) The Board may see fit to allow an applicant who has had no opportunity to obtain a second class certificate to be examined for a first class motor engineer certificate without having a certificate of the lower grade, provided he is able to satisfy the Board as to the satisfactory character of his service, but this must be ample both as regards length and experience. As a rule at least four years sea service, a fair proportion of which must have been in a responsible capacity and qualifying for a first class certificate, will be required.

11. The candidate is required:—

- (a) To display a superior knowledge of the subject specified in Section 9 for second class motor engineer certificates.
- (b) To show that he understands how to maintain in good working condition any machinery or other appliances which may be placed in his charge; how to provide against defects and breakdowns; and also to show that he is competent to carry out or direct any ordinary repairs or renewals that may be required.
- (c) To be acquainted with the usual structure of an ordinary steel ship, and understand how to preserve in good condition such parts as the bilges, bunkers, tanks, etc.
- (d) To be able to recognize from an indicator diagram any irregularity in the working of the engine which it may show, to know how this might be rectified, and to be able to sketch approximately the difference any alteration in the working of the valves, etc., would produce in the diagram.
- (e) To be able to make a satisfactory working drawing of one or more of the principal parts of the machinery, or other appliances with which he ought to be familiar, or to complete and develop a given example, and supply the figured dimensions and other particulars necessary to enable the part or parts depicted to be made from the drawing.
- (f) To know how the flashpoint of an oil is ascertained, and be capable of determining experimentally that of any sample when the necessary apparatus is provided.

Canada Shipping Act—continued

12. Applicants for motor engineer certificates will be required to produce proper testimonials, to the satisfaction of the Board of Steamship Inspection, certifying to service claimed.

- (a) In the case of workshop service the testimonials must be signed by the employer or some other responsible person competent to certify and must testify to the applicant's conduct and ability, and state what kind of work he was engaged on.
- (b) In the case of sea-service testimonials must be signed by the master and chief engineer, or, in the case of testimonials to chief engineers, by the superintendent engineer, or by some responsible person competent, in the opinion of the Board of Steamship Inspection, to certify.

13. For the first certificate of a motor engineer, of any class, or for a certificate raising him to a higher class after re-examination, the applicant shall pay a fee of \$5.

For renewal of a certificate of any class when it has been satisfactorily demonstrated to the Board of Steamship Inspection that, due to loss or destruction of such certificate, it may with propriety, be renewed, a fee of \$1 shall be paid.

5. Regulations respecting helm or steering orders—change to direct system

P.C. 1568

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 13th day of June, 1935.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

Whereas section 897 A of the Canada Shipping Act, as enacted by subsection (8) of section 1 of chapter 52 of the Statutes of 1933, provides as follows:

"897 A. No person on any ship registered in Canada shall, when the ship is going ahead, give a helm order containing the word "star-board" or "right," unless he intends that the head of the ship shall move to the right, or give a helm order containing the word "port" or "left," or any equivalent of "port" or left, unless he intends that the head of the ship shall move to the left.

2. The Governor in Council may make such regulations in respect of the arrangement of steering wheels, indicators or tell-tales, as may, in his opinion, be necessary to carry out the intent of this section.

3. Any person who contravenes the provisions of this section or of any of them or of any regulation made under this section, shall, for each offence, be liable to a penalty not exceeding two hundred and fifty dollars and in default of payment to imprisonment for any term not exceeding one month."

And Whereas by Order in Council, P.C. 2711, of the 12th of December, 1932, made pursuant to the provisions of the Safety of Life at Sea and Load Line Conventions Act, 1931, being chapter 49 of the Statutes of 1931,

Canada Shipping Act—continued

regulations were made making the helm orders therein set out effective in respect of ships other than ships exempt from the provisions of the Safety of Life at Sea and Load Line Conventions Act, 1931, under Section 3 of that Act, or ships steered by hand tiller;

And Whereas the Minister of Marine reports that it is now desired to extend the application of the regulations to all ships registered in Canada;

Now Therefore His Excellency the Governor General in Council, on the recommendation of the Minister of Marine and under the authority of section 897 A of the Canada Shipping Act, is pleased to order as follows:

(a) The regulations made by Order in Council, P.C. 2711, of the 12th of December, 1932, are hereby cancelled, and

(b) The following regulations are hereby made and established:—

1. In every ship registered in Canada the steering wheel shall be so arranged that it shall be moved to starboard to turn the head of the ship to starboard, and to port to turn the head of the ship to port.
2. Where indicators or telltales are fitted they shall be so arranged as to show the direction and amount of movement of the rudder blade.

The whole to be effective as and from the first day of July 1935.

N. A. ROBERTSON,
Clerk of the Privy Council.

6. Regulations respecting the classification of home-trade, inland and minor waters voyages

P.C. 2283

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 9th day of September, 1936.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Marine and under the authority contained in sections 391, 405 and 476 of the Canada Shipping Act, 1934, is pleased to make the annexed regulations respecting the classification of Home-Trade, Inland, and Minor-Waters Voyages, required for the purpose of the issue of inspection certificates, etc., under Part VII of the said Act, and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

**REGULATIONS RESPECTING THE CLASSIFICATION OF HOME-TRADE, INLAND,
AND MINOR-WATERS VOYAGES**

1. For the purpose of the issue of inspection certificates, the form thereof and the particulars therein required under the provisions of Part VII of the Canada Shipping Act, 1934, being chapter 44 of the Statutes of

Canada Shipping Act—continued

Canada, 1934, in respect of steamships intended to be employed in making home-trade voyages, inland voyages, and minor-water voyages, such voyages shall be divided into classes, as follows:—

Home-trade voyage, Class I.
Home-trade voyage, Class II.
Home-trade voyage, Class III.
Home-trade voyage, Class IV.
Inland voyage, Class I.
Inland voyage, Class II.
Minor-waters voyage, Class I.
Minor waters voyage, Class II.

2. (a) A home-trade voyage, Class I, shall mean a home-trade voyage in the course of which a steamship may go anywhere within the limits defined in the said Act for home-trade voyages.
 - (b) A home-trade voyage, Class II, shall mean a home-trade voyage in the course of which, on the Atlantic Coast, a steamship does not go north of Belle Isle, or south of the port of New York, and, on the Pacific Coast, does not go south of Portland, Oregon.
 - (c) Subject to the provisions of regulation 5 of these regulations, a home-trade voyage, Class III, shall mean a home-trade voyage made within certain limits, specified in the inspection certificate, in the course of which a steamship is at no time more than fifteen miles off shore, and the maximum distance between ports of call does not exceed one hundred miles, provided that if, in the course of any such voyage, a steamship passes through any strait or passage not exceeding five miles in width, the entrance to or exit from such strait or passage shall be deemed to be a port of call.
 - (d) Subject to the provisions of regulation 5 of these regulations a home-trade voyage, Class IV, shall mean a home-trade voyage in the course of which a ship does not go beyond certain sheltered waters, specified in the inspection certificate, or on short voyages, so specified, beyond the limit of such sheltered waters, in fine weather, between the first day of May and the thirtieth day of September.
3. (a) An inland voyage, Class I, shall mean an inland voyage in the course of which a steamship may go anywhere within the inland waters of Canada together with such part of any lake or river forming part of any such water as lies within the United States of America.
 - (b) Subject to the provisions of regulation 5 of these regulations, an inland voyage, Class II, shall mean an inland voyage made within certain limits, specified in the inspection certificate, in the course of which a steamship is at no time more than fifteen miles off shore, and the maximum distance between ports of call does not exceed one hundred miles, provided that if, in the course of any such voyage, a steamship passes through any strait or passage not exceeding five miles in width, the entrance to or exit from such strait or passage shall be deemed to be a port of call.
4. (a) A minor-waters voyage, Class I, shall mean a minor-waters voyage in the course of which a steamship may go anywhere within the limits defined in the said Act for minor-waters voyages.

Canada Shipping Act—continued

- (b) Subject to the provisions of regulation 5 of these regulations, a minor-waters voyage, Class II, shall mean a minor-waters voyage made in certain lakes or rivers, specified in the inspection certificate the greatest width of which does not exceed two miles, or a voyage in the course of which a ship does not go beyond the limits of certain sheltered waters, specified in the inspection certificate, or on short voyages, so specified, beyond the limits of such lakes, rivers or waters, in fine weather, between the first day of May and the thirtieth day of September, provided that if a voyage is one made in any lake or river which has a width in excess of two miles for a short distance only, and it appears to the Board to be unreasonable to have such a voyage classed as a minor-waters voyage, Class I, the Board may, in its discretion, class it as a minor-waters voyage, Class II.

5. The Board shall have power to decide, from time to time, having regard to the degree of risk which may be encountered, as to whether any voyages as herein defined as home-trade voyages, Class III, home-trade voyages, Class IV, inland voyages, Class II, and minor-waters voyages, Class II, shall be voyages of those classes, respectively, or voyages of the next higher classes, as herein defined, respectively.

6. Steamships certified to make home-trade voyages, Class I, II, III or IV, may be known as Home-trade steamships, Class I, Home-trade steamships, Class II, Home-trade steamships, Class III, or Home-trade steamships, Class IV, as the case may be.

7. Steamships certified to make inland voyages, Class I or II, may be known as Inland steamships, Class I, or Inland steamships, Class II, as the case may be.

8. Steamships certified to make minor-waters voyages, Class I or II, may be known as Minor-waters steamships, Class I, or Minor-waters steamships, Class II, as the case may be.

9. In these regulations where the expression "miles" is used it means nautical miles.

7. Regulations prescribing methods of computing nominal horse-power for engines

P.C. 2284

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 9th day of September, 1936.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS paragraph (59) of section 2 of the Canada Shipping Act, 1934, being chapter 44 of the Statutes of Canada, 1934, reads as follows:—

"59. 'Nominal horse power' means the measure of the size of marine engines, ascertained in accordance with regulations made from time to time by the Governor in Council."

Canada Shipping Act—continued

AND WHEREAS the Minister of Marine reports that for the purposes of providing steamships with certificated engineers and the examination of and the issuing of certificates to engineers under Part II of the said Act, a method of computing nominal horse power of the engines in steamships is required;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Marine, is pleased to order and it is hereby ordered that for the said purposes, the method of computing nominal horse power for engines in steamships shall be as follows:—

1. For the purposes of providing certificated engineers under the provisions of section 114 of the said Act, the nominal horse power of engines in the following classes shall be computed respectively by the following methods:

- (a) in the case of reciprocating steam-driven engines the nominal horse power shall be computed by adding together the squares of the diameters of the cylinders, taken in inches, and dividing the sum by 30.
- (b) in the case of internal combustion, or motor engines, the nominal horse power shall be computed by adding together the squares of the diameters of the cylinders, taken in inches, and dividing the sum by 60.
- (c) in the case of turbine engines the nominal horse power shall be the number which, in the opinion of the Board of Steamship Inspection, bears the same ratio to the actual power developed in the turbine engine as the nominal horse power of a reciprocating steam-driven engine bears to the actual power developed in that engine.

2. For the purposes of the examination of and the issuing of certificates to engineers under the provisions of section 126 of the said Act, the nominal horse power of reciprocating steam-driven engines and turbine engines shall be computed as provided respectively in paragraph numbered one hereof; provided that if the candidate so desires the nominal horse power of a reciprocating steam-driven engine may be computed by the following formula: where H equals the heating surface of the main boilers, in square feet, D equals the diameter of the low pressure cylinder, in inches, S equals the length of the stroke of the engine, in inches, and P equals the pressure of the main boilers, in pounds per square inch:—

$$\text{N. H. P.} = \frac{(3H + D^2 \sqrt[3]{S}) \sqrt[3]{P}}{700}$$

N. A. ROBERTSON,
Clerk of the Privy Council.

8. Regulations respecting life-saving appliances

P.C. 3

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 6th day of January, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Transport reports that regulations respecting life saving appliances to be carried in steamships are at present partly covered by regulations called "Rules for Life Saving Appliances for Steam-

Canada Shipping Act—continued

ships" adopted by Order in Council of the 6th of November, 1914, and by regulations 11 and 12 of "Regulations for the Issue of Safety Certificates" made by Order in Council of the 18th of October, 1934, and by regulations annexed to the International Convention for the Safety of Life at Sea, as set out in the Schedule to chapter 44 of the Statutes of 1934;

AND WHEREAS the Minister further reports that in view of the provisions of the Canada Shipping Act, 1934, it is now desirable to have new regulations requiring ships to be provided with life saving appliances, in place of the regulations above referred to;

THEREFORE His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, and under the authority of paragraph (c) of subsection (1) of section 405 of the Canada Shipping Act, 1934, is pleased to make the regulations, hereto appended, respecting life saving appliances and they are hereby made and established in place of the regulations above referred to.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING LIFE SAVING APPLIANCES

Interpretation

1. In these Regulations, unless the context otherwise requires:—

"approved" means approved by the Board of Steamship Inspection.

"length" as applied to a ship means registered length.

"life saving appliances" includes life saving equipment.

"number of persons which the ship is certified to carry" means the number of passengers allowed by the certificate of inspection issued in respect of a ship with, added thereto, the number of persons comprising the crew.

"person" means a person over the age of one year.

Classification of Ships

2. For the purposes of these Regulations, ships shall be arranged in the following classes:—

Class I—Steamships which are certified to carry more than twelve passengers on foreign voyages, hereinafter referred to as ships of Class I.

Class II—Steamships which are certified to carry more than twelve passengers on home-trade voyages, Class I, hereinafter referred to as ships of Class II.

Class III—Steamships which are certified to carry passengers on home-trade voyages, Class II, hereinafter referred to as ships of Class III.

Class IV—Steamships which are certified to carry passengers on home-trade voyages, Class III, hereinafter referred to as ships of Class IV.

Class V—Steamships which are certified to carry passengers on home-trade voyages, Class IV, hereinafter referred to as ships of Class V.

Class VI—Steamships which are certified to carry not more than twelve passengers on foreign voyages or on home-trade voyages, Class I, and foreign-going steamships or home-trade steamships, Class I, in excess of 5 tons, gross tonnage, not certified to carry passengers, hereinafter referred to as ships of Class VI.

Canada Shipping Act—continued

Class VII—Home-trade steamships, Class II, home-trade steamships, Class III, and home-trade steamships, Class IV, in excess of 5 tons, gross tonnage, which are not certified to carry passengers, hereinafter referred to as ships of Class VII.

Class VIII—Steamships which are certified to carry passengers on inland voyages, Class I, hereinafter referred to as ships of Class VIII.

Class IX—Steamships which are certified to carry passengers on inland voyages, Class II, or minor waters voyages, Class I, hereinafter referred to as ships of Class IX.

Class X—Steamships which are certified to carry passengers on minor waters voyages, Class II, hereinafter referred to as ships of Class X.

Class XI—Inland steamships and minor waters steamships, in excess of 5 tons, gross tonnage, which are not certified to carry passengers, hereinafter referred to as ships of Class XI.

Class XII—Steamships not in excess of 5 tons gross tonnage, and power-driven pleasure yachts of any tonnage, hereinafter referred to as ships of Class XII.

Class XIII—Barges, scows and like vessels which are certified to carry passengers, and which are towed by a steamship or are operated on a cable and are not moved by sails or oars, hereinafter referred to as ships of Class XIII.

Class XIV—Dredges, rock drills, floating elevators, floating pile drivers or like ships or vessels which are not self-propelled, hereinafter referred to as ships of Class XIV.

PROVISION OF LIFE SAVING APPLIANCES

Availability and Adequacy of Boats, Life Rafts and Buoyant Apparatus

3. (1) The boats, life rafts and buoyant apparatus in a ship shall be readily available in case of emergency and shall be adequate.

(2) To ensure that they are readily available, the boats, life rafts and buoyant apparatus shall comply with the following conditions:—

- (a) They must be capable of being put into the water safely and rapidly even under unfavourable conditions of list and trim.
- (b) It must be possible to embark the passengers in the boats rapidly and in good order.
- (c) The arrangement of each boat, life raft and article of buoyant apparatus must be such that it will not interfere with the operation of other boats, life rafts or buoyant apparatus.

(3) To ensure that they are adequate, the provision of boats, life rafts and buoyant apparatus shall be in accordance with the requirements of such of the following regulations, 4 to 17, as is applicable.

SHIPS OF CLASS I

Steamships which are Certified to Carry more than twelve Passengers on Foreign Voyages

4. (1) This regulation applies to ships of Class I.

(2) Every ship to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in column A of the table set out in the first schedule to these Regulations,

Canada Shipping Act—continued

provided that no ship shall be required to have a number of sets of davits greater than the number of lifeboats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved lifeboat of Class I shall be attached to each set of davits and the Board may require that one of such lifeboats on each side of the ship shall be of such size and so arranged as to be, in their opinion, suitable for use as an emergency lifeboat.

(b) Any additional lifeboats necessary to make up the total lifeboat accommodation required by paragraph (4) of this regulation shall be approved lifeboats of Class 1 or Class 2.

(4) (a) Where the lifeboats carried in pursuance of paragraph (3) (a) of this regulation do not furnish sufficient accommodation for the number of persons which the ship is certified to carry, provision shall be made, to the satisfaction of the Board, to carry such additional approved lifeboats as are required to make up the deficiency in such accommodation.

(b) Subject to the provisions of regulation 34 such additional lifeboats shall be distributed as follows:—

(i) One additional lifeboat shall be stowed under each set of davits.

(ii) The remaining lifeboats shall be carried inboard.

(c) Notwithstanding the requirements of subparagraph (a) of this paragraph, the Board may, if they are of opinion that life rafts will be more readily available and otherwise more satisfactory in a case of emergency than the additional lifeboats mentioned in subparagraph (b) (ii) of this paragraph, allow approved life rafts to be carried in lieu of any such lifeboats with sufficient accommodation for those persons for whom accommodation is not provided in lifeboats, provided that in any case the total capacity of the lifeboats on the ship shall be at least equal to the minimum cubic capacity specified in column C of the tables set out in the first schedule to these Regulations.

(5) Where there is in force, in respect of any ship to which this regulation applies, a memorandum issued under section 392 of the Canada Shipping Act, 1934, (which relates to the modification of safety certificates as respects life saving appliances), the number of persons stated in the memorandum shall, for the purposes of this regulation, be treated as the number of persons which the ship is certified to carry.

(6) Where the number of lifeboats carried in pursuance of this regulation is more than 13, one of such lifeboats shall be an approved motor lifeboat fitted with an approved wireless telegraphy installation and searchlight, and, where the number is more than 19, two of such lifeboats shall be approved motor lifeboats so fitted.

(7) Subject to the provisions of subparagraph (a) of paragraph (3) of this regulation respecting emergency lifeboats, any of the other lifeboats may be approved motor lifeboats, but these additional motor lifeboats need not be fitted with wireless telegraphy installations or searchlights.

(8) Every ship to which this regulation applies shall, in addition to the lifeboats and life rafts carried in pursuance of this regulation, carry approved buoyant apparatus sufficient to support 25 per cent of the number of persons which the ship is certified to carry.

Canada Shipping Act—continued

(9) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of Ship	Minimum number of lifebuoys
Under 200 feet	8
200 feet and under 400 feet.....	12
400 feet and under 600 feet.....	18
600 feet and under 800 feet.....	24
800 feet and over.....	30

(10) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

(11) Every ship to which this regulation applies shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS II

Steamships which are Certified to Carry more than Twelve Passengers on Home-trade Voyages, Class I

5. (1) This regulation applies to ships of Class II.

(2) Every ship to which this regulation applies shall comply with the provisions of regulation 4, except that the buoyant apparatus required to be provided under the provisions of paragraph (8) of that regulation need only be sufficient to support 10 per cent of the number of persons which the ship is certified to carry.

SHIPS OF CLASS III

Steamships which are Certified to Carry Passengers on Home-trade Voyages, Class II

6. (1) This regulation applies to ships of Class III.

(2) Every ship to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in column A of the table set out in the first schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of lifeboats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved lifeboat of Class 1 shall be attached to each set of davits.

(b) Where the lifeboats carried in pursuance of subparagraph (a) of this paragraph do not provide the minimum cubic capacity specified in column D of the table set out in the first schedule to these Regulations, or do not provide sufficient accommodation for the number of persons which the ship is certified to carry, additional approved lifeboats of Class 1 or Class 2 shall be provided up to the minimum capacity specified in column D, after which additional approved lifeboats, approved life rafts, or approved buoyant apparatus shall be provided, to the satisfaction of the Board, so that the accommodation provided will be sufficient for the number of persons which the ship is certified to carry.

Canada Shipping Act—continued

(4) Where there is in force, in respect of any ship to which this regulation applies, which is employed in making international voyages, a memorandum under section 392 of the Canada Shipping Act, 1934 (which relates to the modification of safety certificates as respects life saving appliances), the number of persons stated in the memorandum shall, for the purposes of this regulation, be treated as the number of persons which the ship is certified to carry.

(5) Every ship to which this regulation applies shall carry approved buoyant apparatus sufficient to support 10 per cent of the number of persons which the ship is certified to carry, in addition to any buoyant apparatus carried in pursuance of subparagraph (b) of paragraph (3) of this regulation.

(6) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of Ship	Minimum number of lifebuoys
Under 200 feet	8
200 feet and under 400 feet.....	12
400 feet and under 600 feet.....	18
600 feet and under 800 feet.....	24
800 feet and over.....	30

(7) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

(8) Every ship to which this regulation applies shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS IV

Steamships which are Certified to Carry Passengers on Home-trade

Voyages, Class III

7. (1) This regulation applies to ships of Class IV.

(2) Every ship which is more than 60 feet in length to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in the table set out in the second schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of lifeboats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved lifeboat of Class I shall be attached to each set of davits.

(b) The minimum aggregate capacity of the lifeboats which are attached to the davits shall be as specified in the second schedule to these Regulations, provided that no ship shall be required to carry a greater aggregate capacity of lifeboats than is required to accommodate the number of persons which the ship is certified to carry.

(4) Every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1 having a capacity of at least 80 cubic feet, so stowed that it can readily be placed in the water on either side of the ship. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

Canada Shipping Act—continued

(5) Every ship which is not more than 40 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1 having a capacity of at least 50 cubic feet, so stowed that it can readily be placed in the water. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(6) Where the lifeboats carried in pursuance of paragraph (3), (4) or (5) of this regulation do not provide sufficient accommodation for the number of persons which the ship is certified to carry, additional approved lifeboats of Class 1 or Class 2, approved life rafts or approved buoyant apparatus shall be provided, to the satisfaction of the Board, so that the accommodation provided will be sufficient for the number of persons which the ship is certified to carry.

(7) Where there is in force, in respect of any ship to which this regulation applies, which is employed in making international voyages, a memorandum under section 392 of the Canada Shipping Act, 1934 (which relates to the modification of safety certificates as respects life saving appliances), the number of persons stated in the memorandum shall, for the purposes of this regulation, be treated as the number of persons which the ship is certified to carry.

(8) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of Ship	Minimum number of lifebuoys
Under 200 feet	6
200 feet and over	10

(9) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

(10) Every ship to which this regulation applies, of 500 tons, gross tonnage, and upwards, shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS V

*Steamships which are Certified to Carry Passengers on Home-trade
Voyages, Class IV*

8. (1) This regulation applies to ships of Class V.

(2) Every ship which is more than 75 feet in length to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in the table set out in the third schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of boats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved boat of Class 3 shall be attached to each set of davits.

(b) The minimum aggregate capacity of boats attached to davits shall be as specified in the table set out in the third schedule to these Regulations, provided that no ship shall be required to carry a greater aggregate capacity of boats than is required to accommodate the number of persons which the ship is certified to carry.

Canada Shipping Act—continued

(4) Every ship which is more than 60 feet in length and not more than 75 feet in length to which this regulation applies shall carry at least one approved boat of Class 3 having a capacity of at least 75 cubic feet, so stowed that it can readily be placed in the water on either side of the ship. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(5) Every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved boat of Class 3 having a capacity of at least 50 cubic feet, so stowed that it can readily be placed in the water. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(6) Where the boats carried in pursuance of paragraph (3), (4) or (5) of this regulation do not provide sufficient accommodation for at least 70 per cent of the number of persons which the ship is certified to carry, such additional approved boats, approved life rafts or approved buoyant apparatus shall be provided, to the satisfaction of the Board, as will be sufficient together with the boats required by paragraph (3), (4) or (5) of this regulation, to accommodate at least 70 per cent of the number of persons which the ship is certified to carry.

(7) Every ship which is not more than 40 feet in length to which this regulation applies shall be provided with approved buoyant apparatus, to the satisfaction of the Board, sufficient to support at least 70 per cent of the number of persons which the ship is certified to carry.

(8) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of Ship	Minimum number of lifebuoys
Under 60 feet	2
60 feet and under 120 feet.....	4
120 feet and over	6

(9) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

SHIPS OF CLASS VI

Steamships which are Certified to carry not more than Twelve passengers on Foreign Voyages or on Home-trade Voyages, Class I, and Foreign-going Steamships or Home-trade Steamships, Class I, in excess of 5 Tons, Gross Tonnage, not Certified to Carry Passengers.

9. (1) This regulation applies to ships of Class VI.

(2) Every ship to which this regulation applies shall carry on each side of the ship approved lifeboats of Class 1, in such number and of such aggregate capacity as will accommodate all persons on board, provided that, so long as not less than half the total capacity on each side of the ship is provided in approved lifeboats of Class 1, the Board may allow:—

(a) if the number of such lifeboats required under this regulation is three, an approved boat of Class 3 to be carried in lieu of one of them;

Canada Shipping Act—continued

- (b) if the number of such lifeboats exceeds three, one or two approved boats of Class 3 to be carried in lieu of the same number of such lifeboats.
- (3) Each lifeboat or boat shall be attached to a set of davits.
- (4) Every ship to which this regulation applies shall carry at least six approved lifebuoys, together with one approved lifejacket for each person on board.
- (5) Every ship to which this regulation applies, of 500 tons, gross tonnage, and upwards, shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS VII

Home-trade Steamships, Class II, Home-trade Steamships, Class III, and Home-trade Steamships, Class IV, in excess of 5 Tons, Gross Tonnage, which are not Certified to Carry Passengers.

10. (1) This regulation applies to ships of Class VII.

(2) Every ship which is more than 100 feet in length to which this regulation applies shall carry on each side of the ship one or more boats of sufficient aggregate capacity to accommodate all persons on board. Such boats shall be attached to davits.

(3) One of the boats may be an approved boat of Class 3. The remaining boat or boats shall be approved lifeboats of Class 1.

(4) Subject to the provisions of paragraph (6) of this regulation, every ship which is more than 60 feet in length and not more than 100 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1, so stowed that it can readily be placed in the water on either side of the ship, and of sufficient capacity to accommodate all persons on board, but the capacity of this lifeboat shall not be less than 75 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(5) Subject to the provisions of paragraph (6) of this regulation every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1, so stowed that it can readily be placed in the water on either side of the ship, and of sufficient capacity to accommodate all persons on board, but the capacity of this lifeboat shall not be less than 50 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(6) Every ship which is more than 40 feet in length and not more than 100 feet in length to which this regulation applies, and which is certified to make home-trade voyages, Class IV, shall carry at least one approved boat of Class 3, so stowed that it can readily be placed in the water, and of sufficient capacity to accommodate all persons on board, but the capacity of this boat shall not be less than 50 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(7) Every ship which is not more than 40 feet in length and which is in excess of 5 tons, gross tonnage, to which this regulation applies shall carry at least one approved life raft having sufficient capacity to accommodate all persons on board.

Canada Shipping Act—continued

(8) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of ship	Minimum number of lifebuoys
Under 40 feet	1
40 feet and under 100 feet.....	2
100 feet and over.....	4

(9) Every ship to which this regulation applies shall carry one approved lifejacket for each person on board.

(10) Every ship to which this regulation applies, of 500 tons, gross tonnage, and upwards, except ships certified to make home-trade voyages, Class IV, shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS VIII

Steamships which are Certified to Carry Passengers on Inland Voyages, Class I

11. (1) This regulation applies to ships of Class VIII.

(2) Every ship to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in column A of the table set out in the first schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of lifeboats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved lifeboat of Class I shall be attached to each set of davits.

(b) Where the lifeboats carried in pursuance of subparagraph (a) of this paragraph do not provide the minimum cubic capacity specified in column D of the table set out in the first schedule to these Regulations, or do not provide sufficient accommodation for the number of persons which the ship is certified to carry, additional approved lifeboats of Class 1 or Class 2 shall be provided up to the minimum capacity specified in column D, after which additional approved lifeboats, approved life rafts or approved buoyant apparatus shall be provided, to the satisfaction of the Board, so that the accommodation provided will be sufficient for the number of persons which the ship is certified to carry.

(4) Where a ship to which this regulation applies has a special passenger steamship's certificate allowing the ship, when engaged on day-light voyages between the 15th day of May and the 30th day of September, inclusive, to carry a number of persons in excess of the number of persons which the ship is certified to carry ordinarily, the equipment required under the provisions of paragraph (3) of this regulation shall provide sufficient accommodation for at least 80 per cent of the number, including the crew, allowed by such special passenger steamship's certificate, or for the number of persons which the ship is certified to carry ordinarily, whichever number is the greater.

(5) Every ship which is not more than 200 feet in length to which this regulation applies shall carry at least six approved lifebuoys, and if more than 200 feet in length, shall carry at least ten approved lifebuoys.

Canada Shipping Act—continued

(6) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

(7) Every ship to which this regulation applies, of 500 tons, gross tonnage, and upwards, shall carry an approved type of line-throwing appliance.

SHIPS OF CLASS IX

Steamships which are Certified to Carry Passengers on Inland Voyages, Class II, or Minor Waters Voyages, Class I

12. (1) This regulation applies to ships of Class IX.

(2) Every ship which is more than 60 feet in length to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in the table set out in the second schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of boats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved lifeboat of Class 1 shall be attached to each set of davits.

(b) The minimum aggregate capacity of the lifeboats attached to davits shall be as specified in the table set out in the second schedule to these Regulations, provided that no ship shall be required to carry a greater aggregate capacity of lifeboats than is required to accommodate the number of persons which the ship is certified to carry.

(4) Every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1 having a capacity of at least 80 cubic feet, so stowed that it can readily be placed in the water on either side of the ship. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(5) Every ship which is not more than 40 feet in length, to which this regulation applies, shall carry at least one approved lifeboat of Class 1 having a capacity of at least 50 cubic feet, so stowed that it can readily be placed in the water. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(6) Where the lifeboats carried in pursuance of paragraph (3), (4) or (5) of this regulation do not provide sufficient accommodation for at least 50 per cent of the number of persons which the ship is certified to carry, such additional approved lifeboats of Class 1 or Class 2, approved life rafts or approved buoyant apparatus, shall be provided, to the satisfaction of the Board, as will be sufficient, together with the lifeboats required by paragraph (3), (4) or (5) of this regulation, to accommodate at least 50 per cent of the number of persons which the ship is certified to carry.

(7) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of ship	Minimum number of lifebuoys
Under 60 feet	2
60 feet and under 120 feet.....	4
120 feet and under 200 feet.....	6
200 feet and over.....	8

Canada Shipping Act—continued

(8) Every ship to which this regulation applies shall carry such number of approved lifejackets as shall be not less than the number of persons which the ship is certified to carry.

SHIPS OF CLASS X

Steamships which are Certified to Carry Passengers on Minor Waters Voyages, Class II

13. (1) This regulation applies to ships of Class X.

(2) Every ship which is more than 75 feet in length to which this regulation applies shall be provided, in accordance with its length, with the number of sets of davits specified in the table set out in the third schedule to these Regulations, provided that no ship shall be required to have a number of sets of davits greater than the number of boats required to accommodate the number of persons which the ship is certified to carry.

(3) (a) An approved boat of Class 3 shall be attached to each set of davits.

(b) The minimum aggregate capacity of the boats which are attached to davits shall be as specified in the table set out in the third schedule to these Regulations, provided that no ship shall be required to carry a greater aggregate capacity of boats than is required to accommodate the number of persons which the ship is certified to carry.

(4) Every ship which is more than 60 feet in length and not more than 75 feet in length to which this regulation applies shall carry at least one approved boat of Class 3 having a capacity of at least 75 cubic feet, so stowed that it can readily be placed in the water on either side of the ship. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(5) Every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved boat of Class 3 having a capacity of at least 50 cubic feet, so stowed that it can readily be placed in the water. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(6) (a) Where, in the case of ships to which this regulation applies which are employed in making voyages on the inland waters of Canada, the boats carried in pursuance of paragraph (3), (4) or (5) of this regulation do not provide sufficient accommodation for at least 40 per cent of the number of persons which the ship is certified to carry, such additional approved boats, approved life rafts or approved buoyant apparatus shall be provided, to the satisfaction of the Board, as will be sufficient, together with the boats required by paragraph (3), (4) or (5) of this regulation, to accommodate at least 40 per cent of the number of persons which the ship is certified to carry.

(b) Where in the case of ships to which this regulation applies which are employed in making voyages on the sea coasts of Canada, the boats carried in pursuance of paragraph (3), (4) or (5) of this regulation do not provide sufficient accommodation for at least 70 per cent of the number of persons which the ship is certified to carry, such additional approved boats, approved life rafts or

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approved buoyant apparatus shall be provided, to the satisfaction of the Board, as will be sufficient, together with the boats required by paragraph (3), (4) or (5) of this regulation, to accommodate at least 70 per cent of the number of persons which the ship is certified to carry.

- (7) (a) Every ship which is not more than 40 feet in length to which this regulation applies which is employed in making voyages on the inland waters of Canada shall be provided with approved buoyant apparatus, to the satisfaction of the Board, sufficient to support at least 40 per cent of the number of persons which the ship is certified to carry.
- (b) Every ship which is not more than 40 feet in length to which this regulation applies which is employed in making voyages on the sea coasts of Canada shall be provided with approved buoyant apparatus, to the satisfaction of the Board, sufficient to support at least 70 per cent of the number of persons which the ship is certified to carry.

(8) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of ship	Minimum number of lifebuoys
Under 60 feet	2
60 feet and under 120 feet.....	4
120 feet and over	6

(9) Every ship to which this regulation applies shall carry such number of approved life jackets as shall be not less than the number of persons which the ship is certified to carry.

SHIPS OF CLASS XI

*Inland Steamships and Minor Waters Steamships in excess of 5 Tons,
Gross Tonnage, which are not Certified to Carry Passengers*

14. (1) This regulation applies to ships of Class XI.

(2) Every ship which is more than 100 feet in length to which this regulation applies shall carry on each side of the ship one or more boats of sufficient aggregate capacity to accommodate all persons on board. Such boats shall be attached to davits.

(3) One of the boats may be an approved boat of Class 3. The remaining boat or boats shall be approved lifeboats of Class 1.

(4) Subject to the provisions of paragraph (6) of this regulation, every ship which is more than 60 feet in length and not more than 100 feet in length to which this regulation applies shall carry at least one approved lifeboat of Class 1, so stowed that it can readily be placed in the water on either side of the ship, and of sufficient capacity to accommodate all persons on board, but the capacity of this lifeboat shall not be less than 75 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(5) Subject to the provisions of paragraph (6) of this regulation, every ship which is more than 40 feet in length and not more than 60 feet in length to which this regulation applies shall carry at least one approved

Canada Shipping Act—continued

lifeboat of Class 1, so stowed that it can readily be placed in the water on either side of the ship, and of sufficient capacity to accommodate all persons on board, but the capacity of this boat shall not be less than 50 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the lifeboat.

(6) Every ship which is more than 40 feet in length and not more than 100 feet in length to which this regulation applies which is certified to make minor waters voyages, Class II, shall carry at least one approved boat of Class 3, so stowed that it can readily be placed in the water, and of sufficient capacity to accommodate all persons on board, but the capacity of this boat shall not be less than 50 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(7) Every ship which is not more than 40 feet in length and which is in excess of 5 tons, gross tonnage, to which this regulation applies, shall carry at least one approved life raft having sufficient capacity to accommodate all persons on board.

(8) Every ship to which this regulation applies shall carry at least the number of approved lifebuoys determined in accordance with the following table:—

Length of Ship	Minimum number of lifebuoys
Under 40 feet.....	1
40 feet and under 100 feet.....	2
100 feet and over.....	4

(9) Every ship to which this regulation applies shall carry one approved life jacket for each person on board.

(10) Every ship to which this regulation applies, of 500 tons, gross tonnage, and upwards, which is certified to make inland voyages, Class I, shall carry an approved type of line-throwing appliance.

(11) Where a ship to which this regulation applies is of such length and carries the lifeboats so placed that, in the opinion of the Board, undue risk might attend when the part of the crew berthed in the forward part of the ship attempted to reach the boats, an approved life raft or rafts of sufficient capacity to accommodate the crew berthed forward shall be carried in the forward part of the ship so as to be readily available, provided that the Board may accept such other arrangements as they deem sufficient in the circumstances.

SHIPS OF CLASS XII

*Steamships not in Excess of 5 Tons, Gross Tonnage, and
Powerdriven Pleasure Yachts of any tonnage*

15. (1) This regulation applies to ships of Class XII.

(2) Every ship to which this regulation applies shall carry one approved life jacket for each person on board, and, if in excess of 20 feet in length, shall carry one approved lifebuoy.

(3) Every ship to which this regulation applies, which carries more than twelve passengers, shall carry approved buoyant apparatus sufficient to support at least 50 per cent of the number of persons on board.

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SHIPS OF CLASS XIII

Barges, Scows and like Vessels which are Certified to Carry Passengers, and which are Towed by a Steamship or are Operated on a Cable and are not moved by Sails or Oars

16. (1) This regulation applies to ships of Class XIII.

(2) Every ship or vessel which is not more than 50 feet in length to which this regulation applies shall carry at least one approved lifebuoy, and shall also carry one approved life jacket for each person which the ship is certified to carry.

(3) Every ship or vessel which is not more than 50 feet in length to which this regulation applies which is certified to carry more than twelve passengers, shall, if not towed by a steamship, carry approved buoyant apparatus sufficient to support at least 50 per cent of the number of persons which the ship or vessel is certified to carry, provided that where, in the case of any such ship or vessel, the length of the crossing from shore to shore exceeds 600 feet, or where in any other circumstances a Steamship Inspector considers it necessary, there shall be carried, in addition to the buoyant apparatus, an approved boat having a capacity of at least 75 cubic feet, so stowed that it can readily be placed in the water. Suitable means, to the satisfaction of the Board, shall be provided for launching the boat.

(4) Every ship or vessel which is not more than 50 feet in length to which this regulation applies which is towed by a steamship in which passengers are carried, shall carry such approved buoyant apparatus as the Board may require.

(5) Every ship or vessel which is more than 50 feet in length to which this regulation applies shall carry such life saving equipment as the Board may require.

SHIPS OF CLASS XIV

Dredges, Rock Drills, Floating Elevators, Floating Pile Drivers or like Ships or Vessels which are not Self Propelled.

17. (1) This regulation applies to ships of Class XIV.

(2) Every ship or vessel to which this regulation applies shall carry one or more approved boats of sufficient aggregate capacity to accommodate all persons on board, but the capacity of any boat carried under the provisions of this regulation shall not be less than 75 cubic feet. Suitable means, to the satisfaction of the Board, shall be provided for launching the boats.

(3) Every ship or vessel to which this regulation applies shall carry at least two approved lifebuoys, and shall also carry one approved life jacket for each person on board.

REQUIREMENTS FOR BOATS, LIFE RAFTS, BUOYANT APPARATUS AND OTHER
LIFE SAVING APPLIANCES

General Requirements for Boats

18. For the purposes of these Regulations the standard types of boats are classified as follows:—

Class 1—Open boats with rigid sides fitted either (a) with internal buoyancy appliances only, or (b) with internal and external buoyancy appliances, in these Regulations referred to as lifeboats of Class 1.

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Class 2—(a) Open boats fitted with internal and external buoyancy appliances, upper parts of sides collapsible, and (b) decked boats with either fixed or collapsible watertight bulwarks, in these Regulations referred to as lifeboats of Class 2.

Class 3—Open boats constructed in accordance with the provisions of these Regulations relating to lifeboats of Class 1, but not fitted with internal or external buoyancy appliances (except as hereinafter provided in respect of metal boats), in these Regulations referred to as boats of Class 3.

19. (1) All boats shall be properly constructed, and shall be of such form and proportions that they shall have ample stability in a seaway, and sufficient freeboard when loaded with their full complement of persons and equipment. They shall be fitted and arranged to the satisfaction of the Board.

(2) (a) The structural strength of all boats shall be to the satisfaction of the Board.

(b) In the case of boats carried on ships of Classes I, II, III, IV, VIII and IX, the strength of such boats shall be sufficient to permit of their being safely lowered into the water when loaded with a full complement of persons and equipment, provided that this requirement shall not apply to any ship of Class III, IV, VIII or IX, where the height of the boat deck above the waterline at the vessel's lightest sea-going draught does not exceed 15 feet.

(3) In all open boats all thwart and side seats shall be fitted as low in the boat as practicable, and bottom boards shall be fitted so that the thwarts shall not be more than 2 feet 9 inches above them.

(4) Except where otherwise specifically stated in these Regulations, every boat to be carried in accordance with these Regulations shall have a capacity of not less than 125 cubic feet, provided that in the case of ships of Classes IV and IX which are more than 60 feet in length and not more than 75 feet in length, and ships of Classes V and X which are more than 75 feet in length and not more than 100 feet in length, the minimum capacity of any boat shall not be less than 80 cubic feet.

(5) No boat shall be accepted the buoyancy of which depends upon the previous adjustment of one of the principal parts of the hull.

(6) The weight of a boat when fully laden with persons and equipment shall not exceed 20 tons.

20. All lifeboats of Class 1 shall comply with the provisions of Part I of the fourth schedule to these Regulations in addition to the provisions of regulation 19.

21. All lifeboats of Class 2 shall comply with the provisions of Part II of the fourth schedule to these Regulations in addition to the provisions of regulation 19.

22. All boats of Class 3 shall comply with the provisions of Part III of the fourth schedule to these Regulations in addition to the provisions of regulation 19.

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General Requirements for Motor Boats

23. Every motor boat carried as part of the life saving appliances of a ship of Class I or Class II, whether or not in compliance with paragraph (6) of regulation 4, shall comply with the following conditions:—

- (a) The boat shall comply with the requirements for a life-boat of Class I, subject to the provisions of regulation 24 as to buoyancy;
- (b) proper appliances shall be provided for putting the boat into the water speedily;
- (c) the boat shall be adequately provided with fuel, and kept so as to be at all times ready for use;
- (d) the motor and its accessories shall be suitably enclosed to ensure operation under adverse weather conditions, and provision shall be made for going astern;
- (e) the speed shall be at least six knots, when fully loaded, in smooth water.

24. The volume of the internal buoyancy appliances of a motor boat and, where fitted, the external buoyancy appliances shall be at least equal to that of the buoyancy appliances which would be required under these rules if the boat were not a motor boat, and shall be increased above that volume if and to the extent that such increase is necessary to compensate for the difference between (a) the weight of the motor and its accessories and, if fitted, the searchlight and the wireless telegraph installation and their accessories, and (b) the weight of the additional persons which the boat could accommodate if the motor and its accessories and, if fitted, the searchlight and the wireless telegraph installation and their accessories were removed.

25. In the case of motor boats which are deemed fit to carry 100 or more persons the volume of the buoyancy appliances shall be increased beyond the volume required by regulation 24 to such extent as may be determined by the Board.

. Carrying Capacity of Boats

26. (1) (a) Subject as hereinafter provided, the number of persons which a boat shall be deemed fit to carry shall be equal to the greatest whole number ascertained by dividing the capacity of the boat in cubic feet, determined in accordance with the provisions of Part I of the fifth schedule to these Regulations, or the surface of the boat in square feet, determined in accordance with the provisions of Part II of the said fifth schedule, as the case may be, by the standard unit of capacity or unit of surface, as the case may be, shown in the following table:—

Type of boat	Standard unit of capacity
Class 1 (a) (Boats fitted with internal buoyancy appliances only)	10 cubic feet
Class 1 (b) (Boats fitted with internal and external buoyancy appliances)	9 cubic feet
Class 3, except for ships of classes V and X.....	10 cubic feet
Class 3, for ships of classes V and X	8 cubic feet
	Standard unit of surface
Class 2	3½ square feet

(b) In the case of boats having a cubic capacity of less than 125 cubic feet, the unit of capacity, except in boats carried in ships of Class V

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or Class X, shall be increased so that it shall be 12 cubic feet for boats having a capacity of 75 cubic feet, and 14 cubic feet for boats having a capacity of 50 cubic feet. In the case of boats carried in ships of Class V or Class X, the unit of capacity shall be increased so that it shall be 10 cubic feet for boats having a capacity of 75 cubic feet, and 12 cubic feet for boats having a capacity of 50 cubic feet.

The unit of capacity for boats of intermediate sizes shall be determined by interpolation.

- (c) The Board may, in the case of a decked lifeboat of Class 2, accept, in place of $3\frac{1}{2}$ square feet, a smaller unit of surface not being less than 3 square feet, if they are satisfied after trial that the number of persons for which there is proper seating accommodation in the boat is greater than the number obtained by applying the standard unit.

(2) The number of persons which a boat is deemed fit to carry shall not

- (a) exceed the number of adult persons wearing lifejackets for which there is proper seating accommodation, arranged in such a way that the persons when seated do not interfere in any way with the use of the oars; and
- (b) in the case of lifeboats of Class 2 be such as to reduce the freeboard of the boat, when fully laden, below the minimum freeboard laid down for each type of lifeboat of this class in Part II of the fourth schedule to these Regulations.

(3) If the Inspector is doubtful as to the number of persons any boat is fit to carry, he may require it to be tested afloat, fully laden with equipment and the intended number of persons, all wearing lifejackets.

(4) In the case of boats of a depth of more than 4 feet, boats with very fine ends and boats very full in form, the number of persons which the boat is deemed fit to carry may be determined by the Board otherwise than in accordance with the foregoing provisions of this regulation.

(5) Where a lifeboat of Class 1 is carried as part of the life saving appliances on a ship of Class V or Class X, the unit of capacity allowed under the provisions of this regulation in the case of a boat of Class 3 may be used, provided it be demonstrated by test that the lifeboat can safely carry the greater number of persons found by using this unit of capacity.

General Requirements for Life Rafts

27. An approved life raft shall comply with the following conditions:—

- (a) it shall be of approved material and construction;
- (b) it shall be effective and stable when floating either way up;
- (c) it shall be fitted with fixed or collapsible bulwarks of wood, canvas or other suitable material around both the top and bottom platforms;
- (d) it shall have a line securely becketed around the outside;
- (e) it shall be of such strength that it can be launched or thrown from the ship's deck without being damaged, and if intended to be thrown it shall be of such size and weight that it can easily be handled;
- (f) it shall have not less than three cubic feet of air cases or equivalent buoyancy appliances for each person to be carried thereon;

Canada Shipping Act—continued

- (g) it shall have a deck area of not less than four square feet for each person to be carried thereon, and it shall effectively support the occupants out of the water;
- (h) the air cases or equivalent buoyancy appliances shall be placed as near as possible to the sides of the life raft, and such buoyancy appliances shall not be dependent on inflation by air.
- (i) air cases for life rafts shall be constructed of copper or yellow metal of not less than 18 ounces to the superficial foot or of other approved material, provided that in life rafts carried in ships making voyages exclusively in fresh water, the air cases may be of galvanized iron of not less than 18 B.W.G. in thickness.

General Requirements for Buoyant Apparatus

28. (1) Approved buoyant apparatus, whether buoyant deck seats, buoyant deck chairs, or other buoyant apparatus, shall be deemed sufficient, so far as buoyancy is concerned, for the number of persons equal to the greatest whole number ascertained by dividing the number of pounds of iron which the apparatus is capable of supporting in fresh water by 32, and the apparatus shall be deemed fit to support the number so ascertained or a number equal to the number of feet in the perimeter of the apparatus, whichever number is the smaller.

(2) Approved buoyant apparatus shall comply with the following conditions:—

- (a) it shall be of approved material and construction;
- (b) it shall be effective and stable when floating either way up;
- (c) it shall be of such size, strength and weight that it can be handled without mechanical appliances and, if necessary, thrown without damage from the ship's deck on which it is stowed;
- (d) if it depends for its buoyancy on air it shall not be so constructed as to require inflation before use in an emergency;
- (e) the air cases or equivalent buoyancy appliances shall be placed as near as possible to the sides of the apparatus;
- (f) air cases for buoyant apparatus shall be constructed of copper or yellow metal of not less than 18 ounces to the superficial foot or of other approved material, provided that for buoyant apparatus carried in ships making voyages exclusively in fresh water the air cases may be of galvanized iron of not less than 18 B.W.G. in thickness;
- (g) it shall have a line securely becketed around the outside of the apparatus.

Marking of Boats, Life Rafts and Buoyant Apparatus

29. (1) All boats shall be permanently marked to the satisfaction of the Board in such a manner as to indicate plainly their dimensions and the number of persons which they are deemed fit to carry.

(2) All life rafts shall be marked in the same manner with the number of persons which they may carry.

(3) All buoyant apparatus shall be marked in the same manner with an indication that they are buoyant and with the number of persons which they are deemed fit to support.

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Equipment of Boats

30. (1) Subject to the provisions of this regulation every boat which is carried by any ship shall be equipped as follows:—

- (a) with the full single banked complement of oars, two spare oars, and a steering oar; provided that boats of less than 125 cubic feet need only be equipped with one spare oar, and need not be equipped with a steering oar;
- (b) with two plugs for each plug hole, attached by lanyards or chains, and one set and a half of the thole pins or crutches, attached to the boat by lanyards. Plugs shall not be required where proper automatic valves are fitted;
- (c) with a bailer, a galvanized iron bucket, a rudder and a tiller, or yoke and yoke lines, a painter of sufficient length, and a boat hook. The rudder, the bailer, and the bucket shall be attached to the boat by sufficiently long lanyards, and kept ready for use;
- (d) on ships navigating in salt water, except ships of Class V, with a vessel capable of holding one quart for each person that the boat is deemed fit to carry. This vessel shall be kept filled with fresh water, and provided with a dipper with lanyard;
- (e) with two hatchets, one to be kept in each end of the boat, and to be attached to the boat by a lanyard;
- (f) with a line securely becketed around the outside of the boat;
- (g) with a lantern trimmed, with oil in its receiver sufficient to burn for eight hours, or with some other lantern or light approved by the Board, and with a box of suitable matches in a watertight tin;
- (h) with an efficient compass;
- (i) with a sea anchor;
- (j) with a vessel of approved pattern containing one gallon of vegetable or animal oil, so constructed that the oil can be easily distributed on the water and so arranged that it can be attached to the sea anchor;
- (k) with one dozen self-igniting red lights in a watertight tin;
- (l) with a suitable locker for the storage of the small items of the equipment.

(2) In the case of ships of Classes V, X, XIII and XIV, and the ships of Classes VII and XI which are certified to make home-trade voyages, Class IV, or minor water voyages, Class II, the boats shall not be required to carry the equipment specified in subparagraphs (h), (i), (j) and (k) of paragraph (1) of this regulation.

(3) Subject to the provisions of this regulation, in addition to the equipment prescribed in paragraph (1) of this regulation all boats carried by ships of Classes I, II and VI shall be equipped as follows:—

- (a) with a mast or masts, and with at least one good sail and proper gear for each;
- (b) with an airtight case containing two pounds of biscuits for each person that the boat is deemed fit to carry;
- (c) with one pound of condensed milk for each person that the boat is deemed fit to carry.

(4) Every boat which is deemed fit to carry 100 or more persons shall be fitted with a motor and shall comply with the requirements of regulations 23, 24 and 25.

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(5) A motor boat need not carry a mast or sails or more than half the complement of oars, but it shall carry two boat-hooks.

(6) A decked boat shall have no plug hole, but shall be provided with at least two bilge pumps.

(7) In the case of ships of Classes I and II, which carry passengers in the North Atlantic on voyages not proceeding south of 35° North Latitude, only four of the lifeboats need be equipped with masts and sails, and only one-half the quantity of condensed milk specified in paragraph (3) (c) of this regulation need be carried. The lifeboats which are equipped with masts and sails shall be marked with a red band, three inches wide, painted immediately below the sheer strake.

Wireless Installations and Searchlights in Motor Boats

31. (1) The wireless installation to be carried in a motor boat in pursuance of paragraph (6) of regulation 4, shall be capable of transmission and reception on a frequency of 500 kilocycles (wavelength 600 metres) and shall be provided with a source of power sufficient to give a minimum of 10 metre amperes (the number of metre amperes being determined by multiplying the current in amperes measured at the base of the aerial by the maximum height in metres of the aerial above the waterline) and to maintain the installation in operation, allowing for intermittent use, for a total period of six running hours.

(2) The searchlight to be carried by a motor boat in pursuance of paragraph (6) of regulation 4 shall include a lamp of at least 80 watts, an efficient reflector and a source of power which will give effective illumination of a light-coloured object over a width of about 60 feet at a distance of 200 yards for a total period of six hours, and shall be capable of working for three hours continuously.

(3) Where the power for the wireless installation and the searchlight is derived from the same source, that source shall be of sufficient power to provide for the adequate working of both appliances simultaneously.

Equipment of Life Rafts

32. (1) Subject to the provisions of paragraph (2) of this regulation, the normal equipment of every approved life raft shall consist of:—

- (a) four oars;
- (b) five rowlocks;
- (c) a self-igniting lifebuoy light;
- (d) a sea-anchor;
- (e) a painter;
- (f) a vessel of approved pattern, containing one gallon of vegetable or animal oil, so constructed that the oil can be easily distributed on the water, and so arranged that it can be attached to the sea-anchor;
- (g) an airtight case containing two pounds of biscuits for each person to be carried;
- (h) a watertight receptacle, provided with a dipper with lanyard, containing one quart of fresh water for each person to be carried;
- (i) at least one dozen self-igniting red lights and a box of matches in a watertight container.

Canada Shipping Act—continued

- (2) (a) Ships of Classes III and IV shall be exempt from carrying the equipment for life rafts specified in subparagraph (g) of paragraph (1) of this regulation.
- (b) Ships of Classes VIII and IX shall be exempt from carrying the equipment for life rafts specified in subparagraphs (g) and (h) of paragraph (1) of this regulation.
- (c) Ships of Classes V and X shall be exempt from carrying the equipment for life rafts specified in subparagraphs (c), (d), (f), (g) and (h) of paragraph (1) of this regulation.

Stowage of Equipment in Boats and Life Rafts

33. All boats and life rafts shall be fully equipped before the ship proceeds to sea, and the equipment shall remain in the boat or life raft throughout the voyage, while the ship is at sea, or shall be stowed in some convenient place where it will be immediately available in case of emergency.

Stowage and Handling of Boats, Life Rafts and Buoyant Apparatus

34. (1) All boats attached to davits, and all boats stowed under boats attached to davits, shall be stowed to the satisfaction of the Board in such a way that—

- (i) they can be launched in the shortest possible time;
 - (ii) they will not impede in any way the prompt handling of any other of the boats attached to davits or stowed under boats attached to davits, or the buoyant apparatus carried in pursuance of paragraph (8) of regulation 4, paragraph (2) of regulation 5 or paragraph (5) of regulation 6, or the marshalling of the persons on board at the launching stations, or their embarkation;
 - (iii) even under conditions of list and trim unfavourable from the point of view of the handling of the boats, as large a number of persons as possible can be embarked in them.
- (2) (a) Boats and life rafts additional to boats stowed under boats attached to davits shall be stowed across a deck, bridge or poop, and so secured that they will have the best chance of floating free of the ship if there is no time to launch them. They must not impede in any way the prompt handling of the boats attached to davits, or the boats stowed under boats attached to davits, or the buoyant apparatus, or the marshalling of the persons on board at the launching stations or their embarkation.
 - (b) As large a number as possible of the additional boats referred to in subparagraph (a) of this paragraph shall be capable of being launched on either side of the ship by means of approved appliances for transferring them from one side of the deck to the other.
 - (c) Means shall be provided, to the satisfaction of the Board, for lowering the additional boats referred to in subparagraph (a) of this paragraph into the water in the shortest possible time.

(3) Subject to the foregoing provisions of this regulation, boats may be stowed one above the other, or they may, subject to such conditions as the Board may impose, be fitted one within another, but where boats so fitted require lifting before being launched they may only be so fitted if mechanical power appliances for lifting are provided. In no other case shall boats be so stowed as to require lifting before being launched.

Canada Shipping Act—continued

(4) Where a boat is stowed underneath another boat there shall be provided approved removable supports or other approved appliances, so as to secure that the weight of a boat is not unduly supported by the boat underneath it.

(5) Boats may be stowed on more than one deck on condition that proper measures are taken to prevent boats on a lower deck being fouled by those stowed on a deck above.

(6) Boats shall not be placed in the bows of the ship or in any positions in which they would be brought into dangerous proximity to the propellers at the time of launching.

(7) All life rafts and buoyant apparatus shall be so stowed as to be readily available in case of emergency.

(8) Davits shall be of approved form and shall be suitably placed to the satisfaction of the Board. They shall be so disposed on one or more decks that the boats placed under them can be safely lowered without interference from the operation of any other davits.

(9) (a) The davits, falls, blocks, and all other gear shall be of sufficient strength to the satisfaction of the Board.

(b) In the case of ships of Classes I, II, III, IV, VIII and IX, the davits, falls, blocks and all other gear shall subject to the provisions of paragraph (14) of this regulation, be of such strength that the boats can be safely lowered with the full complement of persons and equipment, with the ship listed to 15 degrees either way.

(c) Lifelines shall be fitted to the davit spans, and the falls, and lifelines shall be long enough to reach the water with the ship at her lightest sea-going draught and listed to 15 degrees either way. Hooks shall not be attached to the lower tackle blocks.

(10) In the case of ships of Classes I, II, III, IV, VIII and IX the davits shall, subject to the provisions of paragraph (14) of this regulation, be fitted with gear of sufficient power to ensure that the boat, fully equipped and manned, but not otherwise loaded with passengers, can be turned out against the maximum list at which the lowering of the boats is possible.

(11) Boats attached to davits shall have the falls ready for service, and means shall be provided for speedily, but not necessarily simultaneously, detaching the boats from the falls. The points of attachment of the boats to the falls shall be so situated as to ensure the boats being easily swung clear of the davits.

(12) The boats' chocks shall be of such construction and arranged in such manner as shall be satisfactory to the Board.

(13) Subject to the provisions of paragraph (14) of this regulation, where more than one boat is served by the same set of davits, if the falls are of rope, separate falls shall be provided to serve each boat, but where wire falls are used with mechanical appliances for recovering them, separate falls need not be provided. The appliances used shall be such as to ensure lowering the boats rapidly and in turn. Where mechanical power appliances are fitted for the recovery of the falls, efficient hand gear shall also be provided.

(14) In the case of ships of Classes II, III, IV, VIII and IX, where the height of the boat deck above the waterline when the vessel is at her lightest sea-going draught does not exceed 15 feet, the requirements of

Canada Shipping Act—continued

paragraphs (9) (b), (10) and (13) of this regulation shall not apply, but provision shall be made for the matters to which those paragraphs relate, to the satisfaction of the Board.

Life Jackets

35. (1) An approved life jacket shall mean a jacket or other approved appliance capable of being fitted on the body, of approved material and construction, which is capable of floating in fresh water for at least 24 hours with 16½ pounds of iron suspended from it. It shall be reversible and suitable both for adults and children.

(2) No life jackets shall be approved or carried the buoyancy of which depends on air compartments.

Lifebuoys

36. (1) (a) An approved lifebuoy shall be of solid cord or other approved material, and shall be capable of floating in fresh water for at least 24 hours with 32 pounds of iron suspended from it.

(b) No lifebuoys filled with rushes, cork shavings, granulated cork or any other loose granulated material, or whose buoyancy depends upon air compartments requiring inflation, shall be approved or carried.

(2) All lifebuoys shall be fitted with beackets securely seized, and at least one on each side of the ship shall be fitted with a lifeline at least 15 fathoms in length.

(3) (a) Subject to the provisions of subparagraph (b) of this paragraph, in every ship at least half the lifebuoys required by these Regulations shall be provided with approved self-igniting lights which cannot be extinguished in water, so, however, that in the case of ships of Classes I, II and III, the number of lifebuoys so provided shall not in any case be less than six.

(b) Lifebuoy lights shall not be required in ships of Classes V and X, in ships of Class VII which are home-trade steamships Class IV, or in ships of Class XI which are minor waters steamships, Class II.

(c) The lifebuoy lights shall be kept near the lifebuoys to which they belong, with the necessary means of attachment.

Stowage or Lifebuoys and Life Jackets

37. (1) All lifebuoys and life jackets shall be stowed to the satisfaction of a Steamship Inspector, and so placed as to be readily accessible to the persons on board; their position shall be plainly indicated so as to be known to the persons concerned.

(2) Lifebuoys shall always be capable of being rapidly cast loose and shall not be permanently secured in any way.

Line-throwing Appliances

38. (1) An approved line-throwing appliance shall consist of:—

(a) Four 2 pound line-throwing rockets with suitable sticks or other approved apparatus capable of throwing a line $\frac{5}{16}$ ths inch in circumference a distance of 120 yards in calm weather, and

(b) Two lines, $\frac{5}{16}$ ths inch in circumference each not less than 240 yards in length, having a breaking strain of not less than 150 pounds.

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(2) The rockets with the means of igniting them and the lines shall be kept in a watertight case.

MISCELLANEOUS PROVISIONS

Embarkation in the Boats and Life Rafts

39. (1) Suitable arrangements as required by the Board shall be made on ships of Classes I, II, III, IV, VIII and IX for embarking the passengers in the boats at an embarkation deck. Ships of Class I shall be provided throughout the ship with electrically-operated signals, controlled from the bridge, for summoning passengers to muster stations.

(2) (a) Subject to the provisions of this paragraph, all ships which are certified to carry passengers shall carry not less than one ladder of an approved type at each set of davits, and all ships which are not certified to carry passengers shall carry not less than one ladder of an approved type for every two sets of davits. The ladders shall be of sufficient length to reach the waterline with the ship at her lightest sea-going draught and listed to 15 degrees either way, and shall be carried in such a manner as to be always available for use in embarking the persons in the boats or life rafts.

(b) Where it is shown to the satisfaction of a Steamship Inspector that in ships of Classes V, VI, VII, X and XI, the passengers and crew can be safely embarked in the boats without the use of ladders, these need not be carried.

Means of Ingress and Egress—Emergency Lighting

40. (1) Proper arrangements shall be made, to the satisfaction of the Board, on all passenger ships for ingress to and egress from the different compartments and decks.

(2) Subject to the provisions of paragraph (4) of this regulation, provision shall be made on all ships of Classes I, II, III, IV, VIII and IX, for an electric or other system of lighting sufficient, to the satisfaction of the Board, for all requirements of safety, in the different parts of the ship and particularly upon the decks on which the boats are stowed. On ships in which the boat deck is more than 30 feet above the waterline at the lightest sea-going draught, provision shall be made for the illumination from the ship of the boats when alongside and in process of or immediately after being launched. There must be a self-contained source of power capable of supplying, when necessary, this safety lighting system, and placed in the upper parts of the ship above the bulkhead deck.

(3) Subject to the provisions of paragraph (4) of this regulation, in ships of the classes mentioned in paragraph (2) of this regulation, the exit from every main compartment occupied by passengers or crew shall be continuously lighted by an emergency lamp. The power for these emergency lamps shall be so arranged that they will be supplied from the source of power referred to in paragraph (2) of this regulation in the event of failure of the main generating plant.

(4) The provisions of paragraphs (2) and (3) of this regulation shall not apply to ships which are not required to have Safety Convention certificates and in which passengers are not berthed.

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Certificated Lifeboatmen

41. (1) The crew of every ship of Classes I, II, III, IV and VIII, and of ships of Class IX of more than 500 tons, gross tonnage, shall include, for each boat or life raft carried as part of the life saving equipment, a number of certificated lifeboatmen not less than that specified in the following table:—

Prescribed complement of boat or life raft	Minimum number of certificated lifeboatmen
Less than 41 persons.....	2
From 41 to 61 persons.....	3
From 62 to 85 persons	4
Above 85 persons	5

(2) For the purpose of this regulation:—

- (a) "certificated lifeboatman" means any member of the crew who holds a certificate as such issued by or under the authority of the Minister or by any other authority approved by him.
- (b) "prescribed complement" means the number of persons which a boat or life raft is deemed fit to carry under these regulations.

Equivalents and Exemptions

42. Notwithstanding anything contained in these Regulations:—

(1) Where these Regulations require that a particular fitting, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Board may allow any other fitting, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made, if they are satisfied that that other fitting, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by these Regulations.

(2) If it appears to the Board, on the application of the owner of any ship, that it is not practicable or reasonable to fit in that ship the number of sets of davits required by these Regulations, the Board may direct that one or more sets of davits may be dispensed with in that ship subject to such conditions, if any, as the Board may require, provided that, in the case of ships of Classes I, II, III and VIII this exemption shall only be allowed under exceptional conditions, and the number of sets of davits fitted shall in no case be less than the minimum number determined by Column B of the table in the first schedule to the Regulations.

(3) If a ship of Class I is permitted by the terms of her passenger certificate to carry, between specified ports or places not in Canada, a number of passengers in addition to the number allowed when the ship is proceeding to sea from Canada, the Board may, subject to such conditions as they think fit, allow, as regards the part of the voyage between such specified ports or places, such modifications of the provisions of paragraphs (4) and (8) of regulation 4 (relating respectively to lifeboats and buoyant apparatus) as appear to them to be justified, so however, that in no case shall the aggregate capacity of lifeboats or the provision of buoyant apparatus on that part of the voyage be less than would be required under these Regulations if the ship were a ship making home-trade voyages of a similar nature to that part of the voyage between such specified ports or places.

(4) If, in the opinion of the Board, it is impracticable in any case for a small ship of Class IV, V, VII, IX, X, XI or XIV to carry a boat of the minimum capacity prescribed by these Regulations, or if, in their opinion,

(4) If, in the opinion of the Board, it is impracticable in any case for a small ship of Class IV, V, VII, IX, X, XI or XIV to carry a boat of the minimum capacity prescribed by these Regulations, or if, in their opinion,

Canada Shipping Act—continued

it would be unreasonable to require that such a boat should be carried, the Board may, in their discretion, and subject to such conditions as they may impose, allow a boat of less capacity to be carried by that ship or may allow such ship to carry such other equipment as they may deem sufficient in the circumstances, in lieu of a boat.

(5) The Board may, on such conditions as they think fit, exempt any ship which is a steamship certified to carry more than twelve passengers on international voyages, the keel of which was laid before the 1st day of July, 1931, or any other ship, the keel of which was laid before the 1st day of August, 1936, from any of the requirements of these Regulations, if they are satisfied that that requirement is either impracticable or unreasonable in the case of that ship.

(6) Where in any ship which is not certified to carry passengers, special boats are carried and regularly used for the work in which the ship is employed, the Board may, under such conditions as they think fit, allow such special boats to form part of the life saving equipment of that ship.

GENERAL

43. (1) Before any life saving appliance is accepted as part of the equipment of a ship under these Regulations, the Chairman of the Board shall be provided with such plans, specifications or other information describing the appliance, or such samples thereof, as the Board may require.

(2) Boats, life rafts, and buoyant apparatus shall be subject to such inspection and tests during construction, and on completion, as the Board may require, and lifebuoys, life jackets and other life saving appliances shall be subject, during manufacture, and on completion, to such examination and tests as the Board may require.

44. Notwithstanding any approval given in respect of any life saving appliance before or after the coming into force of these Regulations, the Board may, in their discretion, withdraw such approval.

45. (1) The provisions of paragraph (5) of regulation 9, paragraph (10) of regulation 10, paragraph (7) of regulation 11, and paragraph (10) of regulation 14, of these Regulations, shall not come into force until the 1st day of July, 1937.

(2) The provisions of subparagraph (a) of paragraph (2) of regulation 39 of these Regulations, except in the case of steamships certified to carry more than twelve passengers on international voyages, shall not come into force until the 1st day of July, 1937.

(3) The provisions of paragraphs (4), (5), (6) and (7) of regulation 10, paragraphs (4), (5), (6) and (7) of regulation 14, paragraph (3) of regulation 15, paragraph (3) of regulation 16 and paragraph (2) of regulation 17, of these Regulations, shall not come into force in respect of ships not propelled by steam until the 1st day of August, 1937.

(4) The provisions of regulation 41 of these Regulations shall not come into force in respect of ships of Classes VIII and IX until the 1st day of July, 1937.

46. For the purpose of determining the number of persons which a boat or life raft can accommodate, each person shall be assumed to be an

Canada Shipping Act—continued

adult wearing a life jacket, and an adult so equipped shall be assumed to weigh 165 pounds, provided that two children under twelve years of age may be reckoned as one person.

47. No part of the life saving equipment of any ship shall be removed from that ship and placed on board any other ship to form part of its life saving equipment without the authority of a Steamship Inspector.

FIRST SCHEDULE

Registered length of ship	A	B	C	D
	Minimum number of sets of davits	Smaller number of sets of davits authorized exceptionally	Minimum capacity of lifeboats in cubic feet	Minimum capacity of lifeboats in cubic feet
Feet				
100 and under 120.....	2	2	980	400
120 " " 140.....	2	2	1,220	600
140 " " 160.....	2	2	1,550	850
160 " " 175.....	3	3	1,880	1,150
175 " " 190.....	3	3	2,390	1,300
190 " " 205.....	4	4	2,740	1,450
205 " " 220.....	4	4	3,330	1,600
220 " " 230.....	5	4	3,900	1,700
230 " " 245.....	5	4	4,560	1,850
245 " " 255.....	6	5	5,100	2,100
255 " " 270.....	6	5	5,640	2,400
270 " " 285.....	7	5	6,190	2,700
285 " " 300.....	7	5	6,930	3,000
300 " " 315.....	8	6	7,550	3,300
315 " " 330.....	8	6	8,290	3,700
330 " " 350.....	9	7	9,000	4,100
350 " " 370.....	9	7	9,630	4,400
370 " " 390.....	10	7	10,650	4,700
390 " " 410.....	10	7	11,700	5,100
410 " " 435.....	12	9	13,060	5,500
435 " " 460.....	12	9	14,430	6,000
460 " " 490.....	14	10	15,920	6,550
490 " " 520.....	14	10	17,310	7,100
520 " " 550.....	16	12	18,720	7,650
550 " " 580.....	16	12	20,350	
580 " " 610.....	18	13	21,900	
610 " " 640.....	18	13	23,700	
640 " " 670.....	20	14	25,350	
670 " " 700.....	20	14	27,050	
700 " " 730.....	22	15	28,560	
730 " " 760.....	22	15	30,180	
760 " " 790.....	24	17	32,100	
790 " " 820.....	24	17	34,350	
820 " " 855.....	26	18	36,450	
855 " " 890.....	26	18	38,750	
890 " " 925.....	28	19	41,000	
925 " " 960.....	28	19	43,880	
960 " " 995.....	30	20	46,350	
995 " " 1,030.....	30	20	48,750	

Note on columns A and B—When the length of the ship is 1,030 feet or over, the Board shall determine the minimum number of sets of davits for that ship.

Note on columns C and D—For the purposes of this table, the capacity, in cubic feet, of a lifeboat of Class 2, is obtained by multiplying the number of persons for which it is certified by 10.

Note on column D—When the length of the ship is under 100 feet, or is 550 feet or over, the cubic capacity of the lifeboats shall be determined by the Board.

Canada Shipping Act—continued

SECOND SCHEDULE

Registered length of ship		Minimum number of sets of davits	Minimum aggregate capacity of lifeboats, in cubic feet
Feet			
over 60 and under 75	75	2	160
75	100	2	250
100	120	2	300
120	140	2	400
140	160	2	500
160	180	2	600
180	195	3	700
195	210	3	800
210	225	4	950
225	240	4	1,080
240	255	5	1,250
255	270	5	1,450
270	285	6	1,700
285	300	6	1,900
300	330	7	2,150
330	360	8	2,400

When the length of a ship is 360 feet or over, the number of sets of davits and the minimum aggregate cubic capacity of the lifeboats to be carried shall be determined by the Board.

THIRD SCHEDULE

Registered length of ship		Minimum number of sets of davits	Minimum aggregate capacity of lifeboats, in cubic feet
Feet			
over 75 and under 100	100	2	180
100	125	2	250
125	150	2	300
150	175	2	400
175	200	4	480
200	225	4	600
225	250	4	800

When the length of a ship is 250 feet or over, the number of sets of davits and the minimum aggregate cubic capacity of the boats shall be determined by the Board.

FOURTH SCHEDULE

PART I

LIFEBOATS OF CLASS 1

1. Every boat shall have a mean sheer at least equal to four per cent of its length.
2. The air cases of every boat shall be so placed as to secure stability when fully laden under adverse weather conditions.

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3. Internal buoyancy appliances shall be constructed of copper or yellow metal of not less than 18 ounces to the superficial foot, or of other approved material, provided that in lifeboats which are carried in ships making voyages exclusively in fresh water, the internal buoyancy appliances may be of galvanized iron of not less than 18 B.W.G. in thickness.

Boats with Internal Buoyancy Appliances only—Class 1 (a)

4. The buoyancy of a wooden boat of this type shall be provided by watertight air cases, the total volume of which is at least equal to one-tenth of the cubic capacity of the boat.

5. The buoyancy of a metal boat of this type shall not be less than that required for a wooden boat of the same cubic capacity, and the volume of watertight air cases shall be increased accordingly.

Boats with Internal and External Buoyancy Appliances—Class 1 (b)

6. The internal buoyancy of a wooden boat of this type shall be provided by watertight air cases, the total volume of which is at least equal to seven and a half per cent of the cubic capacity of the boat.

7. The external buoyancy may be provided by means of cork or any other equally efficient material, but buoyancy shall not be obtained by the use of rushes, cork shavings, loose granulated cork or any other loose granulated substance, or by any means dependent upon inflation by air.

8. If the buoyancy appliances are of cork, their volume, for a wooden boat, shall not be less than thirty-three thousandths of the cubic capacity of the boat; if of any material other than cork, their volume and distribution shall be such that the buoyancy and stability of the boat are not less than that of a similar boat provided with buoyancy appliances of cork.

9. The buoyancy of a metal boat shall be not less than that required for a wooden boat of the same cubic capacity, and the volume of the watertight air cases and of the external buoyancy appliances shall be increased accordingly.

PART II

LIFEBOATS OF CLASS 2

Open Boats with Internal and External Buoyancy, upper part of sides collapsible—Class 2 (a)

10. A wooden boat of this type shall be fitted both with watertight air cases and with external buoyancy appliances the aggregate volume of which, for each person which the boat is able to accomodate, shall be at least equal to the following amounts:—

Air cases	1.5 cubic feet
External buoyancy appliances (if of cork)	0.2 cubic feet

11. Internal buoyancy appliances shall be constructed of copper or yellow metal of not less than 18 ounces to the superficial foot or other approved material provided that in lifeboats which are carried in ships making voyages exclusively in fresh water the internal buoyancy appliances may be of galvanized iron of not less than 18 B.W.G. in thickness.

12. The external buoyancy appliances may be of cork or of any other equally efficient material, but buoyancy shall not be obtained by the use of rushes, cork shavings, loose granulated cork, or any other loose granulated

Canada Shipping Act—continued

substance, or by any means dependent upon inflation by air. If of any material other than cork, their volume and distribution shall be such that the buoyancy and stability of the boat are not less than that of a similar boat provided with buoyancy appliances of cork.

13. A metal boat of this type shall be provided with internal and external buoyancy appliances to ensure that the buoyancy of the boat shall be at least equal to that of a wooden boat of the same cubic capacity.

14. The freeboard of a boat of this type shall be measured vertically to the top of the solid hull at the side amidships, from the water level, when the boat is loaded with its full complement of persons and equipment.

15. The minimum freeboard in fresh water of a boat of this type shall be fixed in relation to its length and shall be determined by the following table:—

Length of boat Feet	Minimum freeboard Inches
26	8
28	9
30	10

The minimum freeboard of boats of intermediate lengths is to be found by interpolation.

16. The collapsible sides of every lifeboat shall be watertight.

*Decked Boats with Either Fixed or Collapsible Watertight
Bulwarks—Class 2 (b)*

17. In the case of boats of the type having a well deck the area of the well deck shall be at least 30 per cent of the total deck area. The height of the well deck above the waterline at all points shall be at least equal to one-half per cent of the length of the boat, this height being increased to one-and-a-half per cent of the length of the boat at the ends of the well. The freeboard in fresh water shall be such as to provide for a reserve buoyancy of at least 35 per cent.

18. (a) The minimum freeboard of a boat of this type having a flush deck is independent of its length and depends only upon its depth. The depth of the boat is to be measured vertically from the underside of the garboard strake to the top of the deck at the side amidships, and the freeboard is to be measured from the top of the deck at the side amidships to the water level when the boat is loaded with its full complement of persons and equipment.

(b) The minimum freeboard in fresh water shall be determined by the following table which is applicable without correction to boats having a mean sheer equal to three per cent of their length (hereinafter called the standard sheer).

Depth of boat Inches	Minimum freeboard Inches
12	2 $\frac{3}{4}$
18	3 $\frac{3}{4}$
24	5 $\frac{1}{2}$
30	6 $\frac{1}{2}$

For intermediate depths the minimum freeboard is obtained by interpolation.

(c) If the sheer is less than the standard sheer the minimum freeboard shall be obtained by adding to the figures in the table one-seventh of the difference between the standard sheer and the actual mean sheer measured at the stem and stern post; no deduction shall be made from the freeboard

Canada Shipping Act—continued

on account of the sheer being greater than the standard sheer or on account of the camber of the deck.

19. Decked boats may be built of wood or metal. If constructed of wood, they shall have the bottom and deck made of two thicknesses, with textile material between; if of metal, they shall be divided into watertight compartments with means of access to each compartment.

20. All decked boats shall be fitted with efficient means for clearing the deck of water. The orifices for this purpose shall be such that the water cannot enter the boat through them when they are intermittently submerged. The number and size of the orifices shall be determined by the Board for each type of boat by a special test.

21. For the purpose of this test:—

- (a) The decked boat shall be loaded with a weight of iron equal to that of its complement of persons and equipment.
- (b) In the case of a boat 28 feet in length, two tons of water shall be cleared from a boat with a well deck in not more than 60 seconds, and in the case of a boat with a flush deck in not more than 20 seconds.
- (c) In the case of a boat having a length (L), greater or less than 28 feet, the weight of water in tons to be cleared in the same times as mentioned in subparagraph (b) shall be for each type calculated by the formula, $L \div 14$.
- (d) A ton shall equal 2,240 pounds.

PART III

BOATS OF CLASS 3

22. Every boat shall have a mean sheer at least equal to four per cent of its length.

23. The buoyancy of a metal boat of this type shall not be less than that required for a wooden boat of the same cubic capacity, and the boat shall be provided with watertight air cases of sufficient volume accordingly.

24. The air cases of every metal boat required under the provisions of paragraph 23 of this schedule shall be constructed of copper or yellow metal of not less than 18 ounces to the superficial foot, or of other approved material, provided that in boats which are carried in ships making voyages exclusively in fresh water the air cases may be of galvanized iron of not less than 18 B.W.G. in thickness.

FIFTH SCHEDULE

PART I

CUBIC CAPACITY OF LIFEBOATS OF CLASS 1 AND OF BOATS OF CLASS 3

- 1. (a) The cubic capacity of a lifeboat of Class 1 or of a boat of Class 3 shall be determined by the formula set out below or by any other method giving the same degree of accuracy. The capacity of a square sterned boat shall be calculated as if the boat had a pointed stern.

$$\text{Cubic capacity} = \frac{L}{12} (4A + 2B + 4C), \text{ where}$$

Canada Shipping Act—*continued*

L denotes the length of the boat in feet from the inside of the planking or plating at the stem to the corresponding point at the stern post; in the case of a boat with a square stern, the length is measured to the inside of the transom.

A, *B* and *C* denote respectively the area of the cross-sections at the quarter length forward, amidships, and the quarter length aft, which correspond to the three points obtained by dividing *L* into four equal parts (the areas corresponding to the two ends of the boat are considered negligible).

The areas *A*, *B* and *C* shall be deemed to be given in square feet by the successive application of the following formula to each of the three cross-sections:—

$$\text{Area} = \frac{h}{12} (a + 4b + 2c + 4d + e), \text{ where}$$

h denotes the depth measured in feet inside the planking or plating from the keel to the level of the gunwale, or, in certain cases, to a lower level, as determined hereafter;

a, *b*, *c*, *d* and *e* denote the horizontal breadths of the boat measured in feet at the upper and lower points of the depth and at the three points obtained by dividing *h* into four equal parts (*a* and *e* being the breadths at the extreme points, and *c* at the middle point of *h*).

- (b) If the oars are pulled in rowlocks, the bottom of the rowlocks shall be considered as the gunwale in measuring the depth of the boat.
- (c) If the sheer of the gunwale, measured at the two points situated at a quarter of the length of the boat from the ends, exceeds 1 per cent of the length of the boat, the depth employed in calculating the area of the cross-sections *A* or *C* shall be deemed to be the depth amidships plus 1 per cent of the length of the boat.
- (d) If the depth of the boat amidships exceeds 45 per cent of the breadth, the depth employed in calculating the area of the midship cross-section *B* shall be deemed to be equal to 45 per cent of the breadth, and the depth employed in calculating the areas of the quarter length sections *A* and *C* is obtained by increasing this last figure by an amount equal to 1 per cent of the length of the boat, provided that in no case shall the depths employed in the calculation exceed the actual depths at these points.

2. Unless the owner of a boat requires the cubic capacity to be determined by exact measurement the cubic capacity may be assumed to be the product of the length, the breadth and the depth multiplied by 0.6 if it is evident that this formula does not give a greater capacity than that obtained by the formula set out in paragraph 1 of this schedule.

The dimensions shall be measured in the following manner:—

Length—From the intersection of the outside of the planking or plating with the stem to the corresponding point at the stern post, or in the case of a square sterned boat, to the after side of the transom.

Breadth—From the outside of the planking or plating at the point where the breadth of the boat is greatest.

Depth—Amidships inside the planking or plating from the keel to the level of the gunwale, but the depth used in calculating the cubic capacity may not in any case exceed 45 per cent of the breadth.

Canada Shipping Act—continued

3. The cubic capacity of a motorboat is obtained from the gross capacity by deducting a volume equal to that occupied by the motor and its accessories, and, when carried, the wireless telegraphy installation and searchlight with their accessories.

PART II

DECK AREA OF LIFEBOATS OF CLASS 2

4. The area of the deck of a decked boat and the area within the "fixed" bulwarks of a lifeboat of Class 2 (a) shall be determined by the formula set out below or by any other method giving the same degree of accuracy.

$$\text{Area} = \frac{L}{12} (2a + 1.5b + 4c + 1.5d + 2e), \text{ where}$$

L denotes the length in feet from the intersection of the outside of the planking or plating with the stem to the corresponding point at the stern post;

a, b, c, d and e denote the horizontal breadths in feet outside the planking or plating at the points obtained by dividing L into four equal parts and subdividing the foremost and aftermost parts into two equal parts (a and e being the breadths at the extreme subdivisions, c at the middle point of the length, and b and d at the intermediate points).

9. Regulations respecting fire extinguishing equipment

P.C. 203

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 2nd day of February, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS regulations respecting fire extinguishing equipment to be carried in steamships are at present partly covered by regulations called "Regulations respecting Fire Extinguishers to be carried in Steamships", adopted by Order in Council of the 12th of April, 1935, and by regulation 10 of "Regulations for the Issue of Safety Certificates" made by Order in Council of the 18th of October, 1934, and by regulations annexed to the International Convention for the Safety of Life at Sea as set out in the Schedule to chapter 44 of the Statutes of 1934;

AND WHEREAS the Minister of Transport reports that in view of the provisions of the Canada Shipping Act, 1934, it is now desirable to have new regulations requiring ships to be provided with fire extinguishing equipment, in place of the aforesaid regulations;

AND WHEREAS under the authority of paragraph (c) of subsection (1) of section 405 of the Canada Shipping Act, 1934, the Governor General in Council is authorized to make such regulations.

Canada Shipping Act—continued

NOW THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority above cited, is pleased to make regulations in the form and terms attached and they are hereby made, established and substituted for the regulations above mentioned.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING FIRE EXTINGUISHING EQUIPMENT

Interpretation

1. In these Regulations, unless the context otherwise requires—
“approved” means approved by the Board of Steamship Inspection.
“motorship” means a steamship propelled by internal combustion engines.
“launch” means a steamship in which the passengers are carried in an open cockpit, or in a cockpit which is covered by a light trunk cabin.
“length” as applied to a ship means registered length.

Classification of Steamships

2. For the purpose of these Regulations steamships shall be arranged in the following classes:—

Class A.—steamships certified to carry passengers, other than ships of Classes B, C and D (in these Regulations referred to as ships of Class A).

Class B.—steamships not exceeding 150 feet in length, other than launches, certified to carry passengers, which are home-trade steamships, Class III, home-trade steamships, Class IV, inland steamships, Class II, minor waters steamships, Class I, or minor waters steamships, Class II (in these Regulations referred to as ships of Class B).

Class C.—launches certified to carry passengers on home-trade voyages, Class III, home-trade voyages, Class IV, inland voyages, Class II, and minor waters voyages, Classes I and II, also launches not in excess of 5 tons, gross tonnage, carrying passengers (in these Regulations referred to as ships of Class C).

Class D.—steamships certified to carry not more than twelve passengers, which are foreign-going steamships, home-trade steamships, Class I, home-trade steamships, Class II, or inland steamships, Class I, and steamships not certified to carry passengers (in these Regulations referred to as ships of Class D).

Fire Detection

3. On every ship of Class A which is engaged on an international voyage, an approved fire alarm or fire-detecting system shall be provided which will automatically register at one or more points or stations in the ship, where it can be most quickly observed by officers and crew, the presence or indication of fire in any part of the ship which is, in the opinion of the Board, not accessible to a fire patrol system.

Canada Shipping Act—continued

FIRE EXTINGUISHING EQUIPMENT

SHIPS OF CLASS A

Spaces occupied by passengers and crew

4. (1) Every ship of Class A shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously brought to bear upon any part of each deck or space occupied by passengers or crew, when the watertight and fire-resisting doors are closed.

(2) On each deck of every ship of Class A there shall be provided, in each enclosed space occupied by passengers or crew, approved portable fluid fire extinguishers so that there shall be at least one such extinguisher for every 50 feet of length, or part thereof, of such space, provided that if any such space is so subdivided or arranged that, in the opinion of a Steamship Inspector, the number of extinguishers hereinbefore specified would not be sufficient, he may require such additional number to be provided as he considers necessary in the circumstances.

Cargo spaces

5. (1) Every ship of Class A shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously directed into any cargo space.

(2) Every ship of Class A, of 1,000 tons, gross tonnage, and upward, shall be provided with apparatus whereby fire smothering-gas, sufficient to give a minimum volume of free gas equal to 30 per cent of the gross volume of the largest hold in the ship, can be promptly conveyed by a permanent piping system into any compartment in which cargo is carried, provided that, in the case of ships propelled by steam engines, the Board may allow the use of steam in lieu of smothering-gas if satisfied that a volume of steam equivalent to the volume of gas required by this regulation will always be available.

(3) Where it is proposed to use steam as a substitute for smothering-gas in a steam-driven ship full details shall be submitted for the information of the Board.

Machinery and bunker spaces

6. Every ship of Class A shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously directed into any part of the coal bunker spaces, boiler rooms or engine rooms.

7. Every ship of Class A, in which the main boilers are coal-fired, shall be provided with at least two approved portable fluid fire extinguishers in each of the boiler rooms and engine rooms.

8. (1) Every ship of Class A, in which the main boilers are oil-fired, shall be provided with—

- (a) conductors for spraying water on oil without undue disturbance of the surface;
- (b) a receptacle containing at least 10 cubic feet of sand, sawdust impregnated with soda, or other approved dry materials, in each firing space, and scoops for distributing such material;
- (c) two approved portable extinguishers constructed to discharge froth, in each boiler room and in each space in which a part of the oil fuel installation is situated;

Canada Shipping Act—continued

- (d) approved apparatus whereby froth can be rapidly discharged and distributed over the whole of the lower part of the boiler room, or of any one boiler room, if there are more than one, or of any space in which oil fuel units or settling tanks are situated. The quantity of froth which can be discharged shall be sufficient to cover to a depth of 6 inches the whole area of the plating formed in any one compartment by the inner bottom plating, or by the shell plating of the vessel if there is no double bottom tank. If the engine and boiler rooms are not entirely separate, and fuel oil can drain from the boiler room bilges into the engine room, the combined engine and boiler rooms shall be considered as one compartment. The apparatus shall be controlled from outside the compartments into which it is required to discharge froth;
- (e) one approved extinguisher, constructed to discharge froth, of at least 30 gallons capacity, in the case of ships having one boiler room, and two such extinguishers in the case of ships having more than one boiler room. These extinguishers shall be provided with hoses on reels suitable for reaching any part of the boiler rooms and spaces containing oil fuel units.

(2) All containers and the valves by which such containers are operated shall be easily accessible, and so placed that they will not readily be cut off from use by an outbreak of fire.

9. (1) Every motorship of Class A shall comply with the requirements of subparagraph (a) of paragraph (1) of regulation 8 of these Regulations, and shall be provided, in each of the engine rooms, with at least one approved 10-gallon extinguisher constructed to discharge froth, fitted with suitable hose attachments or other approved means for distributing the froth, and also with one approved portable extinguisher constructed to discharge froth for each 1,000 B.H.P. of the engines, or part thereof, so however, that the total number of portable extinguishers so provided shall not be less than two and need not exceed six.

(2) If in any motorship a donkey boiler is situated in an engine room, there shall be provided in that space, in place of the 10-gallon extinguisher required by paragraph (1) of this regulation, an extinguisher of 30 gallons capacity, fitted with suitable hose attachments or other approved means for distributing the froth.

Pumps

10. (1) Every ship of Class A, of 4,000 tons, gross tonnage, and upwards, shall be provided with at least three fire pumps, operated by steam or other motive power, and every such ship under 4,000 tons, gross tonnage, with at least two such fire pumps.

(2) Each of such fire pumps shall be capable of delivering such quantity of water as the Board may deem sufficient, in two powerful jets simultaneously in any part of the ship.

(3) Each of such fire pumps shall be provided with effective escape valves, suitably adjusted, and so placed as to prevent excessive pressure in any part of the water-service system.

(4) When more than two such pumps are required they shall not all be fitted in the same space.

(5) In ships in which the main boilers are oil-fired, if the engine and boiler rooms are not entirely separated by a steel bulkhead, and if fuel oil

Canada Shipping Act—continued

can drain from the boiler room bilges into the engine room, one of the fire pumps shall be situated in the tunnel or in some other space outside the engine room or boiler room.

Water-service pipes

11. (1) Every ship of Class A shall be provided with water-service pipes of ample size and made of suitable material, to the satisfaction of the Board.

(2) On every ship of Class A the branch water-service pipes and hydrants shall be so placed on each deck that the fire hoses may be easily coupled to them.

(3) Cocks or valves shall be fitted in such positions on the water-service pipes or branches so that any of the fire hoses may be removed while the fire pumps are at work.

Fire hoses

12. (1) Every ship of Class A shall be provided with such number of fire hoses as the Board may deem sufficient. The fire hoses shall be of approved material and provided with the necessary fittings.

(2) Each of the hoses shall be of sufficient length to project a jet of water to any part of the space in which it is intended to be used.

Smoke helmets and safety lamps

13. Every ship of Class A shall be provided with at least two approved equipments, each consisting of a breathing apparatus or smoke helmet, and a safety lamp, and these equipments shall be kept in widely separated places, provided that ships not in excess of 250 feet in length, which are home-trade steamships, Class III, home-trade steamships, Class IV, inland steamships, Class II, minor waters steamships, Class I, or minor waters steamships, Class II, shall only be required to be provided with one such equipment.

Fire buckets

14. Every ship of Class A shall be provided with such fire buckets, if any, as the Board may require. Where fire buckets are required to be provided in any ship they shall be kept full of water.

Emergency appliances

15. Every ship of Class A shall be provided with such outfit of emergency fire appliances, including axes and other tools, as the Board may consider sufficient.

SHIPS OF CLASS B

Spaces occupied by passengers and crew

16. (1) Every ship of Class B shall be provided with apparatus whereby a powerful jet of water can be rapidly brought to bear upon any part of each deck or space occupied by passengers or crew.

(2) On each deck of every ship of Class B there shall be provided, in each enclosed space occupied by passengers or crew, approved portable fluid fire extinguishers, so that there shall be at least one such extinguisher for every 50 feet of length, or part thereof, of such space, provided that if any such space is so subdivided or arranged that, in the opinion of a Steam-

Canada Shipping Act—continued

ship Inspector, the number of extinguishers hereinbefore specified would not be sufficient, he may require such additional number of extinguishers to be provided as he considers necessary in the circumstances.

Store rooms and cargo spaces

17. Every ship of Class B shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any store room or cargo space.

Machinery and bunker spaces

18. Every ship of Class B shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any part of the coal bunker spaces, boiler rooms or engine rooms.

19. (1) Every ship of Class B, in which the boilers are oil-fired, shall be provided with—

- (a) a conductor for spraying water on oil, without undue disturbance of the surface;
- (b) a receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials, in each firing space, and scoops for distributing such material;
- (c) two approved portable extinguishers constructed to discharge froth, in the boiler room and in each space in which a part of the oil fuel installation is situated;
- (d) two approved extinguishers constructed to discharge froth, each of at least 10 gallons capacity, with hoses suitable for reaching any part of the boiler room and spaces containing oil fuel units, provided that, in ships not exceeding 75 feet in length only one such extinguisher need be provided.

(2) All containers, and the valves by which such containers are operated, shall be easily accessible, and so placed that they will not readily be cut off from use by an outbreak of fire.

20. (1) Every motorship of Class B, the engines of which use fuel oil of a flashpoint of not less than 150° F., shall be provided, in the engine room, with extinguishers constructed to discharge forth, as follows:—

- (a) if the ship is in excess of 100 feet in length, with at least one approved 10-gallon extinguisher, and two approved portable extinguishers;
- (b) if the ship is in excess of 75 feet in length, but not in excess of 100 feet in length, with at least one approved 5-gallon extinguisher and two approved portable extinguishers;
- (c) if the ship is in excess of 50 feet in length, but not in excess of 75 feet in length, with two approved portable extinguishers;
- (d) if the ship is not in excess of 50 feet in length, with one approved portable extinguisher.

(2) Every motorship of Class B, the engines of which use fuel oil of a flashpoint of less than 150° F., shall, in addition to the equipment required in paragraph (1) of this regulation, be provided, in the engine room, with one tetrachloride fluid extinguisher of the hand pump type, of not less than 1½ quarts capacity, for each froth extinguisher required.

Canada Shipping Act—continued

Pumps

21. (1) Every ship of Class B shall be provided with at least one fire pump of ample capacity, operated by steam or other motive power.

(2) Every ship of Class B, in excess of 50 feet in length, in which the boilers are oil-fired, and every motorship of Class B, in excess of 50 feet in length, shall be provided with an additional fire pump connected to the water-service pipes. Such pump shall not be placed in the same compartment with the pump required by paragraph (1) of this regulation, and may be a manual bilge pump of the rotary type of large power situated on deck in a position away from the engine room. The sea suction valve shall be capable of being controlled from outside the engine room.

*Water-Service Pipes, Fire Hoses, Fire Buckets and
Emergency Appliances*

22. Every ship of Class B shall comply with the requirements of Regulations 11, 12, 14 and 15 of these Regulations.

SHIPS OF CLASS C

Fire Buckets

23. Every ship of Class C shall be provided, in accordance with its length, with fire buckets, of ample capacity and suitable for the purpose for which they are intended, in accordance with the following scale:—

Length of ship	Number of buckets
Not exceeding 35 feet	1
Exceeding 35 feet but not exceeding 75 feet	2
Exceeding 75 feet	4

The fire buckets shall be placed in convenient and accessible positions so that they will be readily available in case of fire.

Sand

24. Every ship of Class C shall be provided with a receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials, and a scoop for distributing such material.

Fire Extinguishers

25. (1) Every ship of Class C shall be provided with approved fire extinguishers in accordance with the following:—

- (a) Ships not exceeding 35 feet in length—One tetrachloride fluid extinguisher of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and one extinguisher, constructed to discharge froth, of a capacity of at least 2 gallons.
- (b) Ships exceeding 35 feet but not exceeding 50 feet in length—Two tetrachloride fluid extinguishers, each of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and one extinguisher, constructed to discharge froth, of a capacity of at least 2 gallons.
- (c) Ships exceeding 50 feet but not exceeding 75 feet in length—Two tetrachloride fluid extinguishers, each of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and two extinguishers constructed to discharge froth, each of a capacity of at least 2 gallons.

Canada Shipping Act—continued

(d) Ships exceeding 75 feet in length—Such number of tetrachloride fluid extinguishers, and such number of extinguishers constructed to discharge froth, of such size as the Board may deem sufficient.

(2) Such fire extinguishers shall be placed in positions ready for immediate use, and one shall be placed at each end of the vessel.

26. Every ship of Class C in excess of 75 feet in length shall be provided with at least one fire pump of ample capacity, operated by hand or power.

SHIPS OF CLASS D

Foreign-Going Steamships and Home-Trade Steamships, Class I

27. (1) Every ship of Class D, which is a foreign-going steamship or a home-trade steamship, Class I, of 2,000 tons gross tonnage, and upwards, shall be provided with—

- (a) apparatus whereby at least two powerful jets of water can be rapidly and simultaneously brought to bear upon each space occupied by passengers, officers, or crew, or upon any part of each cargo space, or upon each coal bunker space;
- (b) apparatus whereby steam or smothering-gas may be conveyed to each compartment in which cargo is carried;
- (c) at least one approved portable fluid fire extinguisher in each space occupied by passengers, officers or crew;
- (d) at least two approved equipments, each consisting of a breathing apparatus or smoke helmet, and a safety lamp, which equipments shall be kept in widely separated places.

(2) Every ship of Class D, which is a foreign-going steamship, or a home-trade steamship, Class I, under 2,000 tons, gross tonnage, shall be provided with—

- (a) apparatus whereby at least one powerful jet of water can be rapidly brought to bear upon each space occupied by passengers, officers or crew, or upon any part of each cargo space, or upon each coal bunker space;
- (b) at least one approved portable fluid fire extinguisher in each space occupied by passengers, officers or crew;
- (c) at least one approved equipment consisting of a breathing apparatus or smoke helmet, and a safety lamp.

(3) Every ship of Class D, which is a foreign-going steamship, or a home-trade steamship, Class I, in which the boilers are oil-fired, shall be provided with—

- (a) approved apparatus whereby froth can be rapidly discharged and distributed over the whole of the lower part of the boiler room or with approved apparatus whereby steam or smothering-gas, in sufficient quantity, may be admitted to the lower part of the boiler room;
- (b) two approved portable extinguishers constructed to discharge froth, in the boiler room and in each space in which oil fuel units are situated;
- (c) one approved 10-gallon extinguisher constructed to discharge froth, in the boiler room; (this extinguisher shall only be required in a ship which has more than one boiler).

Canada Shipping Act—continued

- (d) a receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials in each firing space, and scoops for distributing such material.

(4) Every motorship of Class D, which is a foreign-going steamship, or a home-trade steamship, Class I, shall be provided, in the engine room, with two approved portable extinguishers, constructed to discharge froth, when the brake horse-power of the engines does not exceed 500, and with one additional extinguisher of the same type for each additional 1,000 brake horse-power or part thereof, provided that not more than six such extinguishers shall be required.

*Home-Trade Steamships (Other than Home-Trade Steamships, Class I),
Inland Steamships, and Minor Waters Steamships*

28. (1) Every ship of Class D in excess of 150 feet in length, which is not a foreign-going steamship, or a home-trade steamship, Class I, shall be provided with—

- (a) apparatus whereby at least one powerful jet of water can be rapidly brought to bear upon each space occupied by passengers, officers or crew, or upon any part of each cargo space, or upon each coal bunker space;
- (b) at least one approved portable fluid fire extinguisher in each space occupied by passengers, officers or crew, provided that in the case of a ship not exceeding 1,000 tons, gross tonnage, the number of such extinguishers need not exceed three.

(2) Every ship of Class D in excess of 150 feet in length, which is not a foreign-going steamship, or a home-trade steamship, Class I, in which the boilers are oil-fired, shall be provided with—

- (a) approved apparatus whereby froth can be rapidly discharged and distributed over the whole of the lower part of the boiler room, or with approved apparatus whereby steam or smothering-gas in sufficient quantity, may be admitted to the lower part of the boiler room;
- (b) two approved portable extinguishers constructed to discharge froth, in the boiler room, and in each space in which oil fuel units are situated;
- (c) one approved 10-gallon extinguisher constructed to discharge froth, in the boiler room; (this extinguisher shall only be required in a ship which has more than one boiler);
- (d) a receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials, in each firing space, and scoops for distributing such material.

(3) Every motorship of Class D, which is in excess of 150 feet in length and which is not a foreign-going steamship, or a home-trade steamship, Class I, the engines of which use fuel oil of a flashpoint of not less than 150° F., shall be provided, in the engine room, with two approved portable extinguishers constructed to discharge froth, when the brake horse-power of the engines does not exceed 500, and with one additional extinguisher of the same type for each additional 1,000 brake horse-power or part thereof, provided that not more than six such extinguishers shall be required in any case.

(4) Every motorship of Class D which is in excess of 150 feet in length, the engines of which use fuel oil of a flashpoint of less than 150° F., shall,

Canada Shipping Act—continued

in addition to the equipment required by paragraph (3) of this regulation, be provided, in the engine room, with one tetrachloride fluid extinguisher of the hand pump type, of not less than $1\frac{1}{4}$ quarts capacity, for each froth extinguisher required.

29. (1) Every ship of Class D not in excess of 150 feet in length, which is not a foreign-going steamship, or a home-trade steamship, Class I, shall be provided with—

- (a) apparatus whereby at least one powerful jet of water can be rapidly brought to bear on any part of the ship, provided that this requirement shall not apply to an open motor ship not exceeding 50 feet in length;
- (b) at least one approved portable fluid fire extinguisher in each space occupied by passengers, officers or crew, provided that the number of such extinguishers need not exceed three.

(2) Every ship of Class D, not in excess of 150 feet in length, which is not a foreign-going steamship, or a home-trade steamship, Class I, in which the boiler is oil-fired, shall be provided—

- (a) in the boiler room, with approved portable extinguishers constructed to discharge froth, in accordance with the following scale:—

Length of ship	Number of extinguishers
Not exceeding 50 feet.....	1
Exceeding 50 feet but not exceeding 75 feet.....	2
Exceeding 75 feet	4

- (b) with a receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials, in each firing space, and scoops for distributing such material.

(3) Every motorship of Class D which is not in excess of 150 feet in length and which is not a foreign-going steamship, or a home-trade steamship, Class I, the engines of which use fuel oil of a flashpoint of not less than 150° F., shall be provided with approved portable extinguishers, constructed to discharge froth, in accordance with the following scale:—

Length of ship	Number of extinguishers
Not exceeding 75 feet.....	1
Exceeding 75 feet	2

(4) Every motorship of Class D, which is not in excess of 150 feet in length, the engines of which use fuel oil of a flashpoint of less than 150° F., shall, in addition to the equipment required by paragraph (3) of this regulation, be provided with one tetrachloride fluid extinguisher of the hand pump type, of not less than $1\frac{1}{4}$ quarts capacity, for each froth extinguisher required.

(5) The extinguishers required to be provided under the provisions of paragraphs (3) and (4) of this regulation shall be so placed near the engine as to be readily available.

Pumps

30. (1) Every ship of Class D which is a foreign-going steamship or a home-trade steamship, Class I, and every other ship of Class D of 1,000 tons, gross tonnage, and upwards, shall be provided with at least two fire pumps of ample capacity, operated by steam or other motive power.

(2) Every ship of Class D of less than 1,000 tons, gross tonnage, which is not a foreign-going steamship or a home-trade steamship, Class I, shall

Canada Shipping Act—continued

be provided with at least one fire pump of ample capacity operated by steam or other motive power, provided that—

- (a) a decked motorship not in excess of 50 feet in length may be provided with a hand pump of ample capacity;
- (b) an open motorship not in excess of 50 feet in length need not be provided with a fire pump, but shall be provided with at least two fire buckets of ample capacity.

Water-Service Pipes, Fire Hoses, Fire Buckets and Emergency Appliances

31. (1) Every ship of Class D, required by regulation 30 of these Regulations to be provided with fire pumps, shall comply with the requirements of regulations 11 and 12 of these Regulations.

(2) Every ship of Class D shall comply with the requirements of regulations 14 and 15 of these Regulations.

SPECIAL SHIPS

32. (1) Barges, scows and like vessels, which are certified to carry passengers, and which are towed by a steamship, or are operated on a cable by hand power, shall, if they carry vehicles propelled by internal combustion engines, be provided with one approved portable extinguisher, constructed to discharge froth, and two receptacles containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry materials, and scoops for distributing such material. The receptacles containing the sand or dry material shall be widely separated.

(2) Barges, scows and like vessels, which are certified to carry passengers, and which are operated on a cable by mechanical power and are not towed, shall be provided with approved fire extinguishers in accordance with the following:

- (a) Vessels not exceeding 35 feet in length—One tetrachloride extinguisher of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and one extinguisher constructed to discharge froth, of a capacity of at least 2 gallons;
- (b) Vessels exceeding 35 feet but not exceeding 50 feet in length—Two tetrachloride fluid extinguishers, each of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and one extinguisher constructed to discharge froth, of a capacity of at least 2 gallons;
- (c) Vessels exceeding 50 feet but not exceeding 75 feet in length—Two tetrachloride fluid extinguishers, each of $1\frac{1}{4}$ quarts capacity, of the hand pump type, and two extinguishers constructed to discharge froth, each of a capacity of at least 2 gallons;
- (d) Vessels exceeding 75 feet in length—Such number of tetrachloride fluid extinguishers, and such number of extinguishers constructed to discharge froth, of such size as the Board may deem sufficient.

33. Wooden steamships, steel steamships having a considerable amount of woodwork in their superstructures, and steamships which are engaged in the carriage of vehicles propelled by internal combustion engines or which carry cargo of such a nature as to involve an extra fire risk, shall, in addition to any fire extinguishing equipment required under these Regulations, carry such equipment as the Board may, in general or in any particular case, require.

Canada Shipping Act—continued

GENERAL

34. Additional equipment may be required by the Board to be provided in any steamship to meet any particular condition involving, in their opinion, extra fire risk.

35. (1) Where not otherwise stated in these Regulations, the capacity of portable extinguishers of any type shall be not more than three gallons and not less than two gallons.

(2) Portable fluid fire extinguishers required by these Regulations to be provided in passenger and crew spaces of ships of Classes A, B and D shall be of the type discharging water, provided that in any ship extinguishers discharging a medium other than water may be carried up to 20 per cent of the number required by these Regulations.

(3) The portable fluid fire extinguishers provided in any ship in accordance with these Regulations shall be limited to such number of types as the Board may, from time to time, prescribe.

(4) Extinguishers provided in ships in accordance with these Regulations shall be marked, to the satisfaction of the Board, to show when they were last charged.

(5) Every ship which is a foreign-going steamship, or a home-trade steamship, Class I, shall be provided with spare charges for the extinguishers, as may be prescribed by the Board.

36. All equipment, apparatus or appliances provided in accordance with these Regulations shall be in working order and available for immediate use before the ship leaves port, and at all times during the voyage.

EQUIVALENTS AND EXEMPTIONS

37. Notwithstanding anything contained in these Regulations—

(1) Where it is required that a particular fitting, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made in a ship, the Board may allow any other fitting, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made if they are satisfied that that other fitting, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by these Regulations, provided that where a carbon dioxide system is used to replace the froth installation required by subparagraph (d) of paragraph (1) of regulations 8 of these Regulations—

(a) the quantity of carbon dioxide carried shall be sufficient to give a gas saturation of 25 per cent of the gross volume of the boiler room, measured to the tops of the boilers, provided that if a ship has more than one boiler room the quantity of gas required shall be based on the largest boiler room, and the arrangements shall be such as to permit of the whole charge being released into any one boiler room, and provided, further, that if the engine room and boiler room are not entirely separate and fuel oil can drain from the boiler room bilges into the engine room, the combined engine and boiler room shall be considered as one compartment in determining the quantity of gas required;

Canada Shipping Act—continued

- (b) the whole charge of gas shall be capable of being released instantaneously by operating one valve, and the gas bottles shall be fitted with internal pipes to ensure that they are completely discharged;
- (c) provision shall be made to prevent the inadvertent release of the gas, and alarms shall be arranged to give warning in the boiler room when the gas is about to be released;
- (d) provision shall be made to prevent the admission of air to the lower part of the boiler room when the carbon dioxide system is in operation.

(2) The Board may, on such conditions as they think fit, exempt any ship which is a steamship certified to carry more than twelve passengers on international voyages, the keel of which was laid before the first day of July, 1931, or any other ship the keel of which was laid before the first day of August, 1936, from any of the requirements of these Regulations if they are satisfied that that requirement is either impracticable or unreasonable in the case of that ship.

(3) If, in the opinion of the Board, it would be unreasonable in the case of a small ship other than a steamship certified to carry more than twelve passengers, which is a foreign-going steamship, or a home-trade steamship, Class I or Class II, engaged on international voyages, to require that such ship should carry the equipment prescribed by these Regulations, the Board may, in their discretion, and subject to such conditions as they may impose, exempt that ship from compliance with the provisions of these Regulations.

38. (1) The provisions of regulation 13 of these Regulations in as far as they refer to home-trade steamships not employed in making international voyages, and to inland steamships and minor waters steamships, shall not come into force until the 1st day of July, 1937.

(2) The provisions of subparagraph (d) of paragraph (1), and of subparagraph (c) of paragraph (2) of regulation 27 of these Regulations shall not come into force until the 1st day of July, 1937.

10. Regulations for the carriage of timber deck cargoes

P.C. 1029

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 5th day of May, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Acting Minister of Transport, under date of 4th May, 1937, represents that to implement the provisions of the International Convention for the Safety of Life at Sea signed on behalf of Canada at London, England, on the 31st day of May, 1929, and confirmed and sanctioned by the Safety of Life at Sea and Load Line Conventions Act, 1931, it is necessary that provision be made for Regulations governing the carriage of timber deck cargoes.

Canada Shipping Act—continued

Therefore, His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Transport and under the powers conferred by sections 442, 483 (2) and 609 of the Canada Shipping Act, 1934, and all other powers enabling the Governor in Council in that behalf, is pleased to make and doth hereby make the attached regulations for the carriage of timber deck cargoes.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS FOR THE CARRIAGE OF TIMBER DECK CARGOES

The following Regulations are made in pursuance of the powers conferred by sections 442, 483 (2) and 609 of the Canada Shipping Act, 1934, and of all other powers enabling the Governor in Council in that behalf.

Part I—Interpretation

1. These Regulations may be cited as the Timber Cargo Regulations, 1936.

2. In these Regulations unless the context otherwise requires:—

The term "Load Line Rules" means the Rules for the time being in force made under the provisions of sections 424, 428, 429, 430 and 483, Canada Shipping Act, 1934.

The term "timber deck cargo" means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck, but does not include a cargo of wood pulp or similar substance.

The term "freeboard deck" has the same meaning as in the Load Line Rules.

The term "superstructure deck" means the deck forming the top of a superstructure, as defined in the Load Line Rules.

The term "timber load line" means a special load line to be used only when a ship carrying a timber deck cargo complies with these Regulations and the Load Line Rules.

*Part II—Regulations for the Carriage of Timber Deck Cargoes on
All Ships of 150 Tons Gross Tonnage and Upwards*

3. *Application:* Regulations 4 to 9 apply to all ships of 150 tons gross tonnage and upwards carrying a timber deck cargo, which are at any port or place in Canada not within the limits of an inland voyage.

4. *Deck Openings Covered by Timber Deck Cargo:* Openings to spaces below the freeboard deck shall be securely closed and battened down. All fittings such as hatchway beams, fore-and-afters and covers shall be in place. Where hold ventilation is needed, the ventilators shall be efficiently protected.

5. *Stowage:* (a) The timber deck cargo shall be compactly stowed, lashed and secured. It must not interfere in any way with the navigation and necessary work of the ship, *or with the provision of a safe margin of stability at all stages of the voyage*, regard being given to additions of weight such as those due to absorption of water, and to losses of weight such as those due to consumption of fuel and stores.

(b) In the case of a ship within any of the areas set out in the first column of the Schedule hereto, during the periods set out respect-

Canada Shipping Act—continued

ively opposite to such areas in the second column of the said Schedule, the height of the timber deck cargo above the freeboard deck shall not exceed one-third of the extreme breadth of the ship, governed in all cases by the provisions of Paragraph (a).

6. Protection of Crew, Access to Machinery Space, etc.: Safe and satisfactory access to the quarters of the crew, to the machinery space and to all other parts used in the necessary work of the ship shall be available at all times. Deck cargo in way of openings which give access to such parts shall be so stowed that the openings can be properly closed and secured against the admission of water. Efficient protection for the crew in the form of guard rails or life lines, spaced not more than 12 inches apart vertically, shall be provided on each side of the timber deck cargo to a height of at least 4 feet above the cargo. The timber deck cargo shall be so stowed as to be sufficiently level for gangway purposes.

7. Steering Arrangements: Steering arrangements shall be effectively protected from damage by cargo, and, as far as practicable, shall be accessible. Efficient provision shall be made for steering in the event of a break-down in the main steering arrangements.

***8. Lashings:** A complete system of overall lashings of ample strength and in good condition, fitted with releasing arrangements, shall be provided so as to give effective security throughout the length of the timber deck cargo. The releasing arrangements shall be accessible at all times. All fittings required for securing lashings shall be of strength corresponding to the strength of the lashings.

***NOTE.**—In ships not exceeding 500 tons register tonnage engaged on home trade voyages, the releasing arrangements in Regulation 8 may be substituted by rope lanyards on the centre line of the ship, readily accessible and capable of being cut and the lashings released as and when required.

- 9. Uprights:** When uprights are required by the nature of the timber,
- (a) the uprights shall be of adequate strength and may be of wood or metal;
 - (b) the spacing shall be suitable for the length and character of timber carried, but shall not exceed 10 feet; and
 - (c) efficient means shall be provided for securing the uprights.

Part III—Additional Regulations Applying to Steamships Using Timber Load Lines

10. Application: The following additional Regulations apply to steamships marked with timber load lines when loaded beyond the maximum depth to which they would, for the time being, be entitled under the Load Line Rules to be loaded if they were not marked with timber load lines.

11. Stowage: The wells on the freeboard deck shall be filled with timber stowed as solidly as possible, to a height of at least.

- (i) 6 feet for ships up to and including 250 feet in length.
- (ii) 7 feet 6 inches for ships 400 feet in length and above and
- (iii) a proportionate intermediate height for ships above 250 feet but less than 400 feet.

12. Lashings: The timber deck cargo shall be efficiently secured throughout its length by independent overall lashings spaced not more

Canada Shipping Act—continued

than 10 feet apart. Overall lashings shall be in good condition and shall consist of close link chain of not less than $\frac{3}{4}$ inch, or flexible wire rope of equivalent strength, fitted with sliphooks and stretching screws, which shall be accessible at all times. Wire rope lashings shall have a short length of long link chain to permit the length of lashings to be regulated.

When the timber is in lengths of less than 12 feet, the spacing of the lashings shall be reduced to suit the length of timber, or other suitable provision made.

When the spacing of the lashings is 5 feet or less, the size of the lashings may be reduced, but not less than $\frac{1}{2}$ -inch chain or equivalent wire rope shall be used.

13. Means for Securing Uprights: For the purpose of securing uprights when these are required by the nature of the cargo, strong angles or metal sockets efficiently secured to the stringer plate, or equally efficient means, shall be provided.

On superstructure decks, uprights, where fitted, shall be secured by athwartship lashings of ample strength.

SCHEDULE

No.	Area	Winter Period
	Description	
1	The area within and to the northwards of the following line: A line drawn south from the coast of Greenland at long. 50° W. to lat. 45° N. thence along the parallel of 45° N. to long. 15° W. thence north at lat. 60° N. thence along the parallel of 60° N. to the west coast of Norway. Bergen is considered as being on the boundary between this area and area 2 below.	16th October to 15th April
2	The area north of a line drawn from the east coast of America along the parallel of 36° N. to Tarifa in Spain excluding area 1 above but including the Baltic Sea.	1st November to 31st March
3	The Mediterranean and the Black Seas	16th December to 15th March
4	The Sea of Japan between the parallels of 35° N. and 50° N.	1st December to 28/29th February
5	The area north of a line drawn from the east coast of Honshiu in Japan along the parallel of 35° N. to long. 150° W. and thence along a rhumb line to the west coast of Vancouver Island at lat. 50° N., but excluding area 4 above.	16th October to 15th April
6	The area south of a line drawn from the east coast of South America along the parallel of 40° S. to long. 56° W. thence along a rhumb line to the point lat. 34° S., long. 50° W. thence along the parallel of 34° S. to the west coast of South Africa; from the east coast of South Africa at lat. 30° S. along a rhumb line to the west coast of Australia at lat. 35° S. thence along the south coast of Australia to Cape Arid thence along a rhumb line to Cape Grim, Tasmania, thence along the north coast of Tasmania to Eddystone Point thence along a rhumb line to the west coast of South Island, New Zealand, at long. 170° E. thence along the west, south and east coasts of South Island to Cape Saunders thence along a rhumb line to the point lat. 33° S. long. 170° W.; and thence along the parallel of 33° S. to the west coast of South America.	16th April to 15th October

Canada Shipping Act—continued

11. Rules and regulations relating to safety of life and limb on navigable waters within Canadian jurisdiction during regattas and marine parades

P.C. 2765

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 5th day of November, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Transport reports that it is considered expedient that rules and regulations be made relating to the safety of life and limb on navigable waters within Canadian jurisdiction during regattas and marine parades;

AND WHEREAS the accompanying draft of rules and regulations relating to the subject mentioned has been prepared and recommended for approval by the technical officers concerned of the Department of Transport, and the same has been approved by the Deputy Minister of Justice in respect of the legal requirements;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of subsection 3 of section 637 of the Canada Shipping Act, 1934, is pleased to make the rules and regulations relating to safety of life and limb on navigable waters within Canadian jurisdiction during regattas and marine parades, hereto appended, and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

RULES AND REGULATIONS RELATING TO SAFETY OF LIFE AND LIMB ON NAVIGABLE WATERS WITHIN CANADIAN JURISDICTION DURING REGATTAS AND MARINE PARADES

1. In the following regulations, unless the context otherwise requires, "police officer" shall mean and include an officer of the Royal Canadian Mounted Police, an officer of any harbour and river police or an officer of any provincial, county or municipal police.

2. During the progress of a race or of a marine parade no vessel shall pass up or down or across the course or move in waters immediately adjoining the same in such a manner or at such a rate of speed as to endanger participants in the race or parade or the crews or passengers on board vessels in the vicinity thereof.

3. A police officer having jurisdiction in the place where the regatta or marine parade is held may, in order to promote safety of life and limb, forbid movements, prior to, during or subsequent to any race or parade for such reasonable time as he may determine, of any vessel or vessels on the course or in waters adjoining the course.

4. Any vessel or vessels under way on the course or in adjoining waters shall stop when so directed by such a police officer or by any person acting

Canada Shipping Act—continued

under his direction. The signal for such purpose shall, unless the directions are otherwise clearly conveyed, be a succession of short sharp blasts of the whistle of the vessel on board which is the said police officer or any person acting as aforesaid.

5. No regatta or marine parade shall be held in a manner or place which would have the effect of unnecessarily obstructing ordinary navigation.

6. The owner or person in charge of any vessel which, or any person who, contravenes or fails to comply with any of the provisions of these regulations shall be guilty of an offence and liable to a fine not exceeding five hundred dollars.

12. Regulations respecting the form of safety convention certificates, inspection certificates for safety convention ships

P.C. 398

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 25th day of February, 1938.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS subsection (1) of section 391 of the Canada Shipping Act, 1934, authorizes the Governor in Council to make regulations providing for the form of and the particulars to be given in an Inspection Certificate to be issued under the provisions of section 389 of the said Act;

AND WHEREAS subsection (3) of the said section 391 indicates the different certificates to be issued to Safety Convention ships and subsection (4) of the said section provides that these certificates shall be in such form as may be prescribed by regulations made by the Governor in Council, which regulations may provide for combining a Safety Certificate in one document with an Inspection Certificate;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority above cited, is pleased to make regulations respecting the form of Safety Convention Certificates and Inspection Certificates for Safety Convention ships in the form and terms attached hereto and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING THE FORM OF SAFETY CONVENTION CERTIFICATES AND INSPECTION CERTIFICATES FOR SAFETY CONVENTION SHIPS

1. A General Safety Certificate and a Short Voyage Certificate, respectively, shall be combined in one document with an appropriate Inspection Certificate.

2. Subject to the provisions of regulation 6 of these Regulations a combined General Safety Certificate and an Inspection Certificate for a foreign-going passenger steamship, and a combined Short Voyage Safety

Canada Shipping Act—continued

Certificate and an Inspection Certificate for a home-trade passenger steamship shall, respectively, be in the form set out in the first and second Schedules to these Regulations.

3. Where an Inspection Certificate for a home-trade passenger steamship is issued subject to any limitations, as therein provided, it shall be valid only when the limiting conditions are complied with.

4. A qualified Safety Certificate shall be in the form set out in the first or second Schedule to these Regulations, as the case may be, with such modifications as are necessary to show in what respects the steamship in respect of which the certificate is issued complies with the requirements of the Safety Convention. The certificate may have noted thereon that it is qualified in accordance with the exemptions allowed in the Exemption Certificate.

5. An Exemption Certificate shall be in the form set out in the third Schedule to these Regulations.

6. Where in any particular case a combined Safety and Inspection Certificate is issued under any special conditions, the certificate may be endorsed to show these conditions.

7. The particulars inserted by hand in a Safety Convention Certificate, or in certified copies thereof, shall be in Roman characters and Arabic figures.

FIRST SCHEDULE

Form of General Safety Certificate, combined with an Inspection Certificate for a foreign-going passenger steamship.

Form S.I.C. 1
No.

INSPECTION CERTIFICATE

FOR

A FOREIGN-GOING PASSENGER STEAMSHIP

Issued under the provisions of the Canada Shipping Act, 1934

NAME OF SHIP.....

OWNER OR AGENT.....

THIS IS TO CERTIFY:—

1. That the above-mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships have been complied with, and that the ship is fit to ply as a foreign-going steamship with the number of passengers stated below:—

NUMBER OF PASSENGERS			Number of crew	Total passengers and crew
First Class	Second Class	Third Class		

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

All passengers are to have the use of sufficient promenade space on deck, and no deck passengers are to be carried in addition to the number of passengers stated above.

Canada Shipping Act—continued

2. That the inspection showed that the boilers may carry a working pressure not in excess of pounds per square inch.

.....
Chairman, Board of Steamship Inspection.

NOTES

1. One of these duplicate certificates is to be put up in a conspicuous place on board the ship so as to be legible to all persons on board, and to be kept so put up and legible while the certificate remains in force and the ship is in use.

2. If the number of passengers carried exceeds the number allowed by this certificate, the master or owner will be liable to a penalty not exceeding one hundred dollars, and to a further penalty for every passenger carried beyond the proper number.

3. Where a ship has received damage affecting her seaworthiness or her efficiency, either in her hull, machinery or equipment, or where any part of the hull, machinery or equipment has been altered or renewed, so as to affect the conditions under which the certificate was issued, the master or owner shall, as soon as possible, forward a report in the matter to the Chairman of the Board of Steamship Inspection.

4. The Minister of Transport may cancel this certificate if he has reason to believe that, since inspection, the hull, equipment or machinery have sustained any damage or are otherwise insufficient.

DOMINION OF CANADA

SAFETY CERTIFICATE

FOR

AN INTERNATIONAL VOYAGE

Issued under the provisions of the International Convention for Safety of Life at Sea, 1929

Name of ship	Official number	Port of registry	Gross tonnage

THIS IS TO CERTIFY:—

I. That the above-mentioned ship has been duly surveyed in accordance with the provisions of the International Convention referred to above.

II. That the survey showed that the ship complied with the requirements of the said Convention as regards—

- (1) the hull, main and auxiliary boilers and machinery;
- (2) the watertight subdivision arrangements and details;
- (3) the following subdivision loadlines:—

Subdivision loadlines assigned and marked on the ship's side at amidships (Convention Article 5)	Freeboard	To apply when the following alternative spaces are adapted for the carriage of passengers
C. 1 C. 2 C. 3		

(4) the boats, liferafts and lifesaving appliances which provide for a total number (crew and passengers) of persons, and no more, viz:—

- boats capable of accommodating persons
- liferafts capable of accommodating persons
- buoyant apparatus capable of supporting persons
- lifebuoys
- lifejackets
- certificated lifeboatmen

Canada Shipping Act—continued

(5) the radiotelegraph installations:—

	Requirements of Articles 29, 31 and 47 of the said Convention	Actual provision
Hours of watch.....		
Whether approved auto-alarm fitted.....	— — —	
Whether separate emergency installation fitted.....	— — —	
Minimum number of operators.....		
Additional operators or watchers.....		
Whether direction-finding apparatus fitted.....	— — —	

III. That in all other the respects the ship complies with the requirements of the Convention, so far as those requirements apply thereto.

This combined Inspection and Safety Certificate is issued under the authority of the Government of the Dominion of Canada. It will remain in force, unless previously cancelled, until theday of.....19.....

Issued at Ottawa, the.....day of.....19.....

Registered by the Chairman,
Board of Steamship Inspection.

• SECOND SCHEDULE

Form of Short Voyage Safety Certificate combined with an Inspection
Certificate for a home-trade passenger steamship.

Form S.I.C. 2
No.

INSPECTION CERTIFICATE

FOR

A HOME-TRADE PASSENGER STEAMSHIP, CLASS.....

Issued under the provisions of the Canada Shipping Act, 1934

NAME OF SHIP.....

OWNER OR AGENT.....

THIS IS TO CERTIFY:—

1. That the above-mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a home-trade steamship, Class....., with the number of passengers stated below:—

NUMBER OF PASSENGERS	Number of crew	Total passengers and crew

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

LIMITATIONS:

- (i) This certificate shall be valid only for voyages as follows:—(Here follows a description of the waters in which voyages may be made, with any qualifying conditions).
- (ii) This certificate shall not be valid for any voyage made after the.....
day of.....19.....
or before the.....day of.....19.....
- (iii) The special passenger allowance of.....persons, shown above, is for the period,
the.....day of.....19.....
to the.....day of.....19.....

Canada Shipping Act—continued

2. That the inspection showed that the boilers may carry a working pressure not in excess ofpounds per square inch.

.....
Chairman, Board of Steamship Inspection

NOTES

1. One of these duplicate certificates is to be put up in a conspicuous place on board the ship so as to be legible to all persons on board, and to be kept so put up and legible while the certificate remains in force and the ship is in use.

2. If the number of passengers carried exceeds the number allowed by this certificate, the master or owner will be liable to a penalty not exceeding one hundred dollars, and to a further penalty for every passenger carried beyond the proper number.

3. Where a ship has received damage affecting her seaworthiness or her efficiency, either in her hull, machinery or equipment, or where any part of the hull, machinery or equipment has been altered or renewed, so as to affect the conditions under which the certificate was issued, the master or owner shall, as soon as possible, forward a report in the matter to the Chairman of the Board of Steamship Inspection.

4. The Minister of Transport may cancel this certificate if he has reason to believe that, since inspection, the hull, equipment or machinery have sustained any damage or are otherwise insufficient.

5. For description of home-trade voyages see reverse side.

SAFETY CERTIFICATE

DOMINION OF CANADA

FOR

A SHORT INTERNATIONAL VOYAGE

Issued under the provisions of the International Convention for Safety of Life at Sea, 1929

Name of ship	Official number	Port of registry	Gross tonnage

THIS IS TO CERTIFY:—

I. That the above-mentioned ship has been duly surveyed in accordance with the provisions of the International Convention referred to above.

II. That the survey showed that the ship complied with the requirements of the said Convention as regards—

- (1) the hull, main and auxiliary boilers and machinery;
- (2) the watertight subdivision arrangements and details;
- (3) the following subdivision loadlines:—

Subdivision loadlines assigned and marked on the ship's side at amidships (Convention Article 5)	Freeboard	To apply when the following alternative spaces are adapted for the carriage of passengers
C. 1 C. 2 C. 3		

(4) the boats, liferafts and lifesaving appliances which provide for a total number (crew and passengers) ofpersons, and no more, viz.:—

..... boats capable of accommodating.....persons
 liferafts capable of accommodating.....persons
 buoyant apparatus capable of supporting.....persons
 lifebuoys
 lifejackets
 certificated lifeboatmen

Canada Shipping Act—continued

(5) the radiotelegraph installations:—

	Requirements of Articles 29, 31 and 47 of the said Convention	Actual provision
Hours of watch.....		
Whether approved auto-alarm fitted.....	— — —	
Whether separate emergency installation fitted.....	— — —	
Minimum number of operators.....		
Additional operators or watchers.....		
Whether direction-finding apparatus fitted.....	— — —	

III. That in all other respects the ship complies with the requirements of the said Convention so far as those requirements apply thereto.

This combined Inspection and Safety Certificate is issued under the authority of the Government of the Dominion of Canada. It will remain in force, unless previously cancelled, until the

.....day of.....19.....

Issued at Ottawa, the.....day of.....19.....

Registered by the Chairman,
Board of Steamship Inspection.

THIRD SCHEDULE

Form of Passenger Steamship's Exemption Certificate.

Dominion of Canada

EXEMPTION CERTIFICATE

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR SAFETY OF LIFE AT SEA, 1929

Name of ship	Official number	Port of registry	Gross tonnage

This is to certify that the above mentioned ship is, under the authority conferred by Article..... of the International Convention referred to above, exempted from the requirements of.....

.....

of the Convention, on voyages.....

.....

(Here will be inserted the conditions, if any, on which the exemption certificate is granted.)

This certificate is issued under the authority of the Government of the Dominion of Canada.

It will remain in force until the.....day of

Issued at Ottawa, the.....day of.....

.....

Registered by the Chairman, Board of Steamship Inspection.

Canada Shipping Act—continued**13. Sorel, P.Q.—buoyage and anchorage dues**

P.C. 725

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 6th day of April, 1938.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Transport reports that it is deemed expedient to establish regulations for the harbour of Sorel governing the buoyage and moorage of vessels which would be similar to charges proposed to be made effective at ports on the St. Lawrence River under the control of the National Harbours Board, as the adoption of such regulations at Sorel would provide uniformity of such charges, which is considered essential for the effective administration of these larger ports;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of sections 596 and 602 of Part X of the Canada Shipping Act, chapter 44, 1934, is pleased to make a tariff of buoyage and anchorage dues applicable at the harbour of Sorel in the form hereto attached, and it is hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

BUOYAGE DUES AND ANCHORAGE DUES

Definition

- (1) "Buoyage" is defined as a charge, payable to the Harbour Master, or other duly authorized officer, levied on a vessel for mooring at a buoy, which, for the purposes of this tariff, means mooring at any buoy, dolphin or similar facility, under the administration, management or control of the Department in the harbour of Sorel and not used in conjunction with a structure for which a dockage charge is payable.
- (2) "Anchorage" is defined as a charge, payable to the Harbour Master or other duly authorized officer, levied on a vessel for anchoring, which, for the purposes of this tariff, means anchoring within the harbour limit with the permission of the Department, and not docking or mooring at a buoy.

Tariff

- (1) *Buoyage Charges:*

On every vessel mooring at a buoy, there shall be paid, except as hereinafter provided, buoyage charges as follows:

For each twelve (12) consecutive hours or part thereof—one quarter cent ($\frac{1}{4}$ c.) per net registered ton.

- (2) *Anchorage Charges:*

On every vessel anchoring beyond a period of thirty (30) consecutive days from the date of first anchoring, there shall be paid, except as hereinafter provided, anchorage charges as follows:

Canada Shipping Act—continued

For each succeeding thirty (30) days or part thereof—one and one-half cents (1½c.) per net registered ton.

- (3) On every vessel permitted by the Department to moor at a buoy or anchor in the harbour from the close of navigation in any calendar year to the opening of navigation in the succeeding calendar year, and not engaged in commercial activity during that period, there shall be paid, except as hereinafter provided, the following charges:

- (a) Vessels 150 feet overall length and under..... \$25
 (b) Vessels over 150 feet overall length..... 50

In the event of a vessel laying up during the non-navigation season as above provided, and engaging in commercial activity during the whole or part of such period, there shall be paid in respect of such vessel while thus engaged in addition to the charges above provided, a further charge at the rate of two and one-half cents (2½c.) per net registered ton per month or part thereof.

Minimum charge

Notwithstanding anything hereinbefore set forth, the minimum charge for buoyage or anchorage will be One Dollar (\$1).

Exemptions

The following vessels shall be exempt from the payment of buoyage and anchorage charges:

- Vessels of His Majesty's Governments not engaged in commerce;
 Vessels of foreign governments not engaged in commerce;

Vessels mooring or anchoring in the interests of safety of navigation, with the permission of the Department or its duly authorized officer, provided such vessels enter the harbour and depart therefrom within a period of twelve (12) consecutive hours and do not engage in commercial activity while therein;

Vessels ordinarily engaged in Great Lakes-River St. Lawrence traffic while loading or discharging bulk grain only, or while waiting to load or discharge bulk grain.

TERMS AND CONDITIONS

- (1) Buoyage and anchorage charges will become due and payable as they accrue.
- (2) In the event of a vessel having no recorded net registered tonnage, the Department or its duly authorized officer, shall estimate the net tonnage of such vessel, and such estimate shall constitute, for the purposes of this tariff, the net registered tonnage of such vessel.
- (3) Every vessel mooring at a buoy or anchoring will be entirely at owner's risk.
- (4) Charges enumerated in this tariff will apply only to buoyage and anchorage charges as defined herein and do not include charges under any other tariff or tariffs in effect.
- (5) This tariff is issued pursuant to and subject to the Canada Shipping Act, Part X, 1934, section 602.

Canada Shipping Act—continued**14. Regulations respecting the form of inspection certificates for ships which are not safety convention ships**

P.C. 833

AT THE GOVERNMENT HOUSE AT OTTAWA

MONDAY, the 25th day of April, 1938.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of subsection (1) of section 391 of the Canada Shipping Act, 1934, is pleased to make regulations respecting the form of and the particulars to be given in inspection certificates to be issued under the provisions of section 390 of the said Act, in the form and terms hereto attached, and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING THE FORM OF INSPECTION CERTIFICATES FOR SHIPS
WHICH ARE NOT SAFETY CONVENTION SHIPS

1. The form of and the particulars to be given in inspection certificates issued pursuant to the provisions of section 390 of the Canada Shipping Act, 1934, shall be in accordance with the appropriate form set out in the Schedule forming part hereof.

2. Where in any case a ship is allowed to go beyond the limits set out in the certificate, the certificate may be endorsed to show the voyages which the ship is allowed to make.

SCHEDULE

Form S.I.C. 3

INSPECTION CERTIFICATE

FOR

A HOME-TRADE PASSENGER STEAMSHIP,

CLASS.....

(other than a Safety Convention ship)



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA

Name of ship	Official number	Gross tonnage	Port of registry

Canada Shipping Act—continued

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a Home-trade steamship, Class, (other than on international voyages), with the number of passengers stated below:—

Number of passengers	Number of crew	Total passengers and crew

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).
 - (ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....
 - (iii) The special passenger allowance of.....persons shown above is for the period, the.....day of.....19..... to the.....day of.....19.....
2. That the inspection showed:—
- (a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.
 - (b) That the ship carried:—
 -boats, capable of accommodating.....persons
 -liferrafts, capable of accommodating.....persons
 -buoyant apparatus, capable of supporting.....persons
 -lifebuoys,.....lifejackets,.....certificated lifeboatmen.
- This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space.*

.....
*Steamship Inspector, as to the machinery, and fire
 extinguishing equipment for the machinery space.*

Date of issue.....



ISSUED BY THE
 DEPARTMENT OF TRANSPORT,
 CANADA.

Form S.I.C. 3A

INSPECTION CERTIFICATE

FOR

A HOME-TRADE STEAMSHIP, CLASS.....

NON-PASSENGER

Name of Ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a Home-trade steamship, Class, The number of persons, including the master, comprising the crew, is

Canada Shipping Act—continued

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).
 (ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of pounds per square inch.

(b) That the ship carried:—

..... boats, capable of accommodating..... persons
 liferafts, capable of accommodating..... persons
 lifebuoys
 lifejackets

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space*

.....
*Steamship Inspector, as to the machinery and fire
 extinguishing equipment for the machinery space.*

Date of issue.....

Form S.I.C. 4



ISSUED BY THE
 DEPARTMENT OF TRANSPORT,
 CANADA.

INSPECTION CERTIFICATE

FOR

AN INLAND PASSENGER STEAMSHIP,
 CLASS

Name of ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as an Inland steamship, Class....., with the number of passengers stated below:—

Number of passengers	Number of crew	Total passengers and crew

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).
 (ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....
 (iii) The special passenger allowance of.....persons shown above is for the period, the.....day of.....19..... to the.....day of.....19.....

Canada Shipping Act—continued

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.

(b) That the ship carried:—

..... boats, capable of accommodating.....persons
 liferafts, capable of accommodating.....persons
 buoyant apparatus, capable of supporting.....persons
 lifebuoys,..... lifejackets,..... certificated lifeboatmen

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space.*

.....
*Steamship Inspector, as to the machinery, and fire
 extinguishing equipment for the machinery space.*

Date of issue.....



ISSUED BY THE
 DEPARTMENT OF TRANSPORT,
 CANADA.

Form S.I.C. 4A

INSPECTION CERTIFICATE

FOR

AN INLAND STEAMSHIP

CLASS.....NON-PASSENGER

Name of Ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provision^s of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as an Inland steamship, Class.....
 The number of persons, including the master, comprising the crew is,.....

LIMITATIONS:—

(i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).

(ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.

(b) That the ship carried:—

..... boats, capable of accommodating.....persons
 liferafts, capable of accommodating.....persons
 lifebuoys
 lifejackets

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space.*

.....
*Steamship Inspector, as to the machinery and fire
 extinguishing equipment for the machinery space.*

Date of issue.....

Canada Shipping Act—continued



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA.

Form S.I.C. 5

INSPECTION CERTIFICATE

FOR

A MINOR-WATERS,

PASSENGER STEAMSHIP, CLASS.....

Name of Ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a Minor-waters steamship, Class....., with the number of passengers stated below:—

Number of passengers	Number of crew	Total passengers and crew

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions)
 - (ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....
 - (iii) The special passenger allowance of.....persons shown above is for the period, the.....day of.....19..... to the.....day of.....19.....
2. That the inspection showed:—
- (a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.
 - (b) That the ship carried:—
 - boats, capable of accommodating.....persons
 - liferafts, capable of accommodating.....persons
 - buoyant apparatus, capable of supporting.....persons
 - lifebuoys, lifejackets, certificated lifeboatmen

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
Steamship Inspector, as to the hull and equipment
other than fire extinguishing equipment for the
machinery space.

.....
Steamship Inspector, as to the machinery, and fire
extinguishing equipment for the machinery space.

Date of issue.....

Canada Shipping Act—continued



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA.

Form S.I.C. 5A

INSPECTION CERTIFICATE

FOR

A MINOR-WATERS STEAMSHIP,
CLASS..... NON-PASSENGER

Name of Ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a Minor-waters steamship, Class..... The number of persons, including the master, comprising the crew, is.....

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).
(ii) This certificate shall not be valid for any voyage made after the.....day of.....19....., or before the.....day of.....19.....

2. That the inspection showed:—

- (a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.
(b) That the ship carried:—
..... boats, capable of accommodating.....persons
..... liferafts, capable of accommodating.....persons
..... lifebuoys
..... lifejackets

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

.....
Steamship Inspector, as to the hull and equipment,
other than fire extinguishing equipment for the
machinery space.

.....
Steamship Inspector, as to the machinery and fire
extinguishing equipment for the machinery space.

Date of issue.....

Form S.I.C. 6



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA.

INSPECTION CERTIFICATE

FOR

A FOREIGN-GOING STEAMSHIP—NON-
PASSENGER, OR CARRYING NOT MORE
THAN TWELVE PASSENGERS

Name of ship	Official number	Gross tonnage	Port of registry

Canada Shipping Act—continued**THIS IS TO CERTIFY:—**

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is fit to ply as a foreign-going steamship, with the number of passengers stated below:—

Number of passengers	Number of crew	Total passengers and crew

If any of the space measured for passengers is occupied by cargo, cattle or stores, one passenger is to be deducted from the number stated above for every 12 superficial feet so occupied.

All passengers are to have the use of sufficient promenade space on deck, and no deck passengers are to be carried in addition to the number of passengers stated above.

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of pounds per square inch.

(b) That the ship carried:—

..... boats, capable of accommodating..... persons
 lifebuoys
 lifejackets

This certificate, unless previously cancelled, will remain in force until the..... day of..... 19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space.*

.....
*Steamship Inspector, as to the machinery, and fire
 extinguishing equipment for the machinery space.*

Date of issue.....

Form S.I.C. 7



ISSUED BY THE
 DEPARTMENT OF TRANSPORT,
 CANADA.

INSPECTION CERTIFICATE

FOR

A { HOME-TRADE }
 { INLAND } STEAMSHIP, CLASS.....
 { MINOR-WATERS }

NON-PASSENGER, NOT EXCEEDING 150 TONS,
 GROSS TONNAGE, PROPELLED BY
 STEAM ENGINES

Name of ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship is, subject to such limitations as may be specified herein, fit to ply as a (here will be inserted the classification of the steamship). The number of persons, including the master, comprising the crew, is.....

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions)
- (ii) This certificate shall not be valid for any voyage made after the..... day of..... or before the..... day of..... in any year.

Canada Shipping Act—continued

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.

(b) That the ship carried:—

..... boats, capable of accommodating.....persons
 liferafts, capable of accommodating.....persons
 lifebuoys
 lifejackets

This certificate, subject to annual inspection of the boilers and life saving equipment being carried out, will remain in force until the.....day of.....19.....

.....
*Steamship Inspector, as to the hull and equipment,
 other than fire extinguishing equipment for the
 machinery space.*

.....
*Steamship Inspector, as to the machinery, and fire
 extinguishing equipment for the machinery space.*

Date of issue.....

THIS IS TO CERTIFY that the provisions of the Canada Shipping Act, 1934, relating to annual inspection of the boilers and life saving equipment of the above mentioned ship have been complied with, and the inspection showed that the boilers may carry a working pressure not in excess of.....pounds per square inch.

Date.....
Steamship Inspector.

THIS IS TO CERTIFY that the provisions of the Canada Shipping Act, 1934, relating to annual inspection of the boilers and life saving equipment of the above mentioned ship have been complied with, and the inspection showed that the boilers may carry a working pressure not in excess of.....pounds per square inch.

Date.....
Steamship Inspector.

THIS IS TO CERTIFY that the provisions of the Canada Shipping Act, 1934, relating to annual inspection of the boilers and life saving equipment of the above mentioned ship have been complied with, and the inspection showed that the boilers may carry a working pressure not in excess of.....pounds per square inch.

Date.....
Steamship Inspector.



ISSUED BY THE
 DEPARTMENT OF TRANSPORT,
 CANADA.

Form S.I.C. 7A

INSPECTION CERTIFICATE

FOR

A { HOME-TRADE
 INLAND
 MINOR-WATERS } STEAMSHIP, CLASS.....

NON-PASSENGER, NOT EXCEEDING 150 TONS,
 GROSS TONNAGE, PROPELLED BY INTERNAL
 COMBUSTION ENGINES

Name of ship	Official number	Gross tonnage	Port of registry

THIS IS TO CERTIFY:—

1. That the above mentioned ship has been duly inspected in accordance with the provisions of the Canada Shipping Act, 1934, that the provisions of the said Act relating to the inspection of steamships, and applicable to such ship, have been complied with, and that the ship, is subject to such limitations as may be specified herein, fit to ply as a (Here will be inserted the classification of the steamship). The number of persons, including the master, comprising the crew, is.....

Canada Shipping Act—continued

LIMITATIONS:—

- (i) This certificate shall be valid only for voyages as follows:—(Here will follow a description of the waters in which voyages may be made, with any qualifying conditions).
- (ii) This certificate shall not be valid for any voyage made after the.....day of.....or before the.....day of.....in any year.

2. That the inspection showed that the ship carried:—

-boats, capable of accommodating.....persons
-liferrafts, capable of accommodating.....persons
-lifebuoys
-lifejackets

This certificate, unless previously cancelled, will remain in force until the.....day of.....

*Steamship Inspector, as to the hull and equipment,
other than fire extinguishing equipment for the
machinery space.*

*Steamship Inspector, as to the machinery, and fire
extinguishing equipment for the machinery space.*

Date of issue.....

Form S.I.C. 8



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA.

INSPECTION CERTIFICATE

FOR

A FERRY, BARGE OR SCOW USED TO CARRY
PASSENGERS AND TOWED BY A STEAMSHIP
OR OPERATED ON A CABLE

THIS IS TO CERTIFY that the provisions of the Canada Shipping Act, 1934, relating to the inspection of ships carrying passengers have been complied with in so far as applicable, in the case of the**
....., Official number.....
Gross tonnage....., Port of registry.....
and that the vessel is fit to ply***.....
.....
.....
carrying.....passengers, and a crew of.....persons.

The inspection showed that the vessel carried:—

-boats, capable of accommodating.....persons
-buoyant apparatus, capable of supporting.....persons
-lifebuoys
-lifejackets

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

Date of issue.....

Steamship Inspector.

**Here insert a description of the vessel, with the name.

***Here insert the class of voyage, with any limitations as to season or special waters.



ISSUED BY THE
DEPARTMENT OF TRANSPORT,
CANADA.

INSPECTION CERTIFICATE

FOR

A PLEASURE YACHT FITTED WITH BOILERS
FOR PROPELLING PURPOSES

Form S.I.C. 9

THIS IS TO CERTIFY:—

1. That the provisions of the Canada Shipping Act, 1934, relating to the inspection of ships carrying passengers have been complied with in so far as applicable in the case of the yacht
....., Official number.....
Gross tonnage....., Port of registry.....
and that the number of persons, including the master, comprising the crew, is.....

Canada Shipping Act—continued

2. That the inspection showed:—

(a) That the boilers may carry a working pressure not in excess of.....pounds per square inch.

(b) That the ship carried.....lifejackets and.....lifebuoys.

This certificate, unless previously cancelled, will remain in force until the.....day of.....19.....

Date of issue.....
Steamship Inspector.

15. Regulation relating to the speed of motor vessels on the minor waters of Canada

P.C. 314

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 10th day of February, 1939.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Transport reports that it is considered expedient that a Regulation be made for the purpose of controlling the speed of motor vessels on the minor waters of Canada, as defined in section 2 of the Canada Shipping Act, 1934, amended by chapter 23 of the Statutes of Canada, 1936, in the following terms,—

“ ‘Minor waters of Canada’ means all inland waters of Canada other than Lakes Ontario, Erie, Huron (including Georgian Bay), Superior and Winnipeg, and includes all bays, inlets and harbours of or on the said lakes and said Georgian Bay, and such sheltered waters on the sea coasts of Canada as the Minister may specify.”

NOW THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to subsection 4 of section 637 of the Canada Shipping Act, 1934, is pleased to make the following Regulation to provide for the control of the speed of motor vessels on the minor waters of Canada, and it is hereby made and established accordingly:—

REGULATION RELATING TO THE SPEED OF MOTOR VESSELS ON THE MINOR WATERS OF CANADA

- (a) No person shall drive or operate a motor vessel on any waters forming part of the minor waters of Canada recklessly or in a manner or at a speed which is dangerous to navigation or to life or limb having regard to all the circumstances of the case, including the nature, condition and use of such waters and the amount of navigation or use which is actually at the time, or which might reasonably be expected to be, on or in such waters.
- (b) Everyone who contravenes the provisions of this regulation shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding two hundred dollars.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued**16. Regulations respecting subdivision and pumping arrangements of passenger steamships employed making Inland voyages between Canada and United States of America**

P.C. 1790

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 7th day of July, 1939.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of subsection (1) of section 405 of the Canada Shipping Act, 1934, is pleased to make the attached regulations, bearing the title "Regulations respecting the Subdivision and Pumping Arrangements of Passenger Steamships employed making Inland Voyages between Canada and the United States of America," to be applicable to steamships of 150 tons, gross tonnage, and upwards, which are certified to carry more than twelve passengers on inland voyages between any place in Canada and any place in the United States of America, and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING THE SUBDIVISION AND PUMPING ARRANGEMENTS OF
PASSENGER STEAMSHIPS EMPLOYED MAKING INLAND VOYAGES BETWEEN
CANADA AND THE UNITED STATES OF AMERICA

1. The provisions of these Regulations shall apply only to steamships of 150 tons, gross tonnage, and upwards, which are certified to carry more than twelve passengers on inland voyages between any place in Canada and any place in the United States of America.

2. In these Regulations—

The subdivision load line is the waterline drawn parallel to the keel of the ship which is used in determining the subdivision of the ship.

The length of the ship (L) in ships of the usual form at the ends shall be measured between perpendiculars taken at the extremities of the deepest subdivision load line.

The breadth of the ship (B) is the extreme width from outside of frame to outside of frame at or below the subdivision load line.

The bulkhead deck is the uppermost deck to which the transverse watertight bulkheads are carried.

The margin line is a line drawn parallel to the bulkhead deck at side line, and three inches below the upper surface of that deck at side. (See paragraphs (2) and (3) of regulation 3, and the Rules referred to in regulation 4 of these Regulations.)

The permeability of a space is the percentage of that space which can be occupied by water. The volume of a compartment which extends above the margin line shall be measured only to the height of that line.

Canada Shipping Act—continued

The machinery space is to be taken as extending in length between the extreme main transverse watertight bulkheads bounding the spaces devoted to the main and auxiliary propelling machinery, including the boilers when installed, and it shall contain all permanent coal bunkers.

Passenger spaces are those which are provided for the accommodation and use of passengers, excluding baggage, store, provision and mail rooms.

A watertight deck is a deck so constructed as to prevent water under pressure from passing through in either an upward or a downward direction.

A weathertight deck is one through which, in ordinary sea conditions, water will not penetrate in a downward direction. The bulkhead deck is in all cases to be weathertight in this sense unless there is a deck above it which is weathertight.

A "new" ship is a ship the keel of which was laid on or after the 1st day of January, 1939, or a ship which was converted to passenger service on or after that date, all other ships being "existing" ships.

3. (1) Every ship shall be subdivided into watertight compartments so that the length of no compartment shall exceed the floodable length.

(2) For a ship which has a continuous bulkhead deck the floodable length is the maximum portion of the length of the ship having its centre at the point in question, which can be flooded under the definite assumptions as to permeability laid down in regulation (5) of these Regulations, without submerging the margin line.

(3) If the ship has not a continuous bulkhead deck, the floodable length is to be calculated with reference to an assumed continuous margin line up to which, having regard to sinkage and trim after flooding, the sides of the ship and the bulkheads are watertight.

4. (1) The floodable length shall be calculated by the method described in Appendix I to Volume I of the Board of Trade "Instructions as to the Survey of Passenger Steamships", 1928 Edition, and by the use of the curves shown in Volume II of those Instructions, provided, however, that where it is shown to the satisfaction of the Chairman of the Board of Steamship Inspection that a ship is of such unusual form that this method is not completely accurate, an alternative method approved by him may be used.

(2) The following expressions which are used in the calculations referred to in this regulation shall have the following meaning:—

The draught (*d*) is the vertical distance from the top of keel amidships to the subdivision load line.

The freeboard (*f*) is the vertical distance from the subdivision load line to the margin line amidships.

The sheer of the bulkhead deck at any point is the vertical distance between the beam at side line at that point and a line drawn parallel to the subdivision load line at the height of the beam at side line amidships.

The block co-efficient of fineness of displacement to subdivision load line is the volume of displacement to moulded line \div (L.B.d.).

5. (1) The definite assumptions in respect of permeability referred to in regulation 3 of these Regulations relate to the permeabilities of the spaces below the margin line.

Canada Shipping Act—continued

In determining the floodable length, a uniform average permeability shall be used throughout the whole length of each of the following portions of the ship below the margin line:—

- (a) the machinery space, as defined in regulation 1 of these Regulations;
 - (b) the portion forward of the machinery space; and
 - (c) the portion abaft the machinery space.
- (2) (a) For ships propelled by steam the uniform average permeability throughout the machinery space shall be determined from the formula—

$$80 + 12.5 \frac{a-c}{v}$$

where a = volume in cubic feet of the passenger spaces, as defined in regulation 2 of these Regulations, which are situated below the margin line within the limits of the machinery space.

c = volume in cubic feet of between deck spaces below the margin line within the limits of the machinery space which are appropriated to cargo, coal or stores.

v = whole volume in cubic feet of the machinery space below the margin line.

- (b) For ships propelled by internal combustion engines, the uniform average permeability shall be taken as 5 greater than that given by the above formula.
- (c) Where it is shown to the satisfaction of the Chairman of the Board of Steamship Inspection that the average permeability of the machinery space, as determined by detailed calculation, is less than that given by the formula, the calculated value may be substituted. For the purposes of such calculation, the permeabilities of passenger spaces, as defined in regulation 2 of these Regulations, shall be taken as 95, that of all cargo, coal and store spaces as 60, and that of double bottom, oil fuel and other tanks at such values as may be approved in each case by the Chairman.

(3) The uniform average permeability throughout the portion of the ship before (or abaft) the machinery space shall be determined from the formula—

$$63 + 35 \frac{a}{v}$$

where a = volume in cubic feet of the passenger spaces, as defined in regulation 2 of these Regulations, which are situated below the margin line before (or abaft) the machinery space, and

v = whole volume in cubic feet of the portion of the ship below the margin line before (or abaft) the machinery space.

(4) If a between deck compartment between two watertight transverse bulkheads contains any passenger or crew space, the whole of that compartment, less any space completely enclosed within permanent steel bulkheads and appropriated to other purposes, shall be regarded as passenger space. If, however, the passenger or crew space in question is completely enclosed within permanent steel bulkheads, only the space so enclosed need be considered as passenger space.

Canada Shipping Act—continued

6. (1) In ships 430 feet in length and upwards, one of the main transverse bulkheads abaft the forepeak shall be fitted at a distance from the forward perpendicular which is not greater than the floodable length.

(2) A main transverse bulkhead may be recessed provided that all parts of the recess lie inboard of vertical surfaces on both sides of the ship situated at a distance from the shell plating equal to $\cdot 20B$, and measured at right angles to the centre line at the level of the deepest subdivision load line.

Any part of a recess which lies outside these limits shall be dealt with as a step in accordance with the following paragraph.

(3) A main transverse bulkhead may be stepped provided additional subdivision is provided in way of the step to maintain the same measure of safety as that secured by a plane bulkhead.

(4) Where a main transverse bulkhead is recessed or stepped, an equivalent plane bulkhead shall be used in determining the subdivision.

(5) If the distance between two adjacent main transverse bulkheads, or their equivalent plane bulkheads, or the distance between the transverse planes passing through the nearest stepped portions of the bulkheads, is less than $\cdot 02L$ plus 10 feet, only one of these bulkheads shall be regarded as forming part of the subdivision of the ship.

(6) Where a main transverse watertight compartment contains local subdivision and it can be shown to the satisfaction of the Chairman of the Board of Steamship Inspection that, after any assumed side damage extending over a length in feet of $\cdot 02L$ plus 10, the whole volume of the main compartment will not be flooded, a proportionate allowance may be made in the floodable length otherwise required for such compartment. In such a case the volume of effective buoyancy assumed on the undamaged side shall not be greater than that assumed on the damaged side.

(7) Where it is proposed to fit watertight decks, inner skins or longitudinal bulkheads, watertight or non-watertight, the Chairman of the Board of Steamship Inspection shall be satisfied that the safety of the ship will not be diminished in any respect, particularly having in view the possible listing effect of flooding in way of such structural arrangements.

7. (1) Every ship shall have a forepeak or collision bulkhead which shall be watertight up to the bulkhead deck. This bulkhead shall be fitted not less than $\cdot 05L$, and not more than $\cdot 05L$ plus 10 feet from the forward perpendicular.

If the ship has a long forward superstructure, the forepeak bulkhead shall be extended weathertight to the deck next above the bulkhead deck. The extension need not be fitted directly over the bulkhead below, provided it is at least $\cdot 05L$ from the forward perpendicular, and the part of the bulkhead deck which forms the step is made effectively weathertight.

(2) An afterpeak bulkhead, and bulkheads dividing the machinery space from the cargo and passenger spaces forward and aft, shall also be fitted and made watertight up to the bulkhead deck. The afterpeak bulkhead may, however, be stopped below the bulkhead deck, provided the degree of safety of the ship as regards subdivision is not thereby diminished.

(3) In all cases stern tubes shall be enclosed in watertight spaces. The stern gland shall be situated within a watertight shaft tunnel or other space of such volume that if flooded by leakage through the stern gland the margin line will not be submerged.

Canada Shipping Act—continued

The height and width of the watertight tunnel or compartment shall be sufficient at every part to allow proper attention being given to shaft coupling, bearings, etc., within the space.

8. (1) (a) In ships 200 feet and under 249 feet in length a double bottom shall be fitted at least from the machinery space to the forepeak bulkhead or as near thereto as practicable.
- (b) In ships 249 feet and under 330 feet in length a double bottom shall be fitted at least outside the machinery space, and shall extend to the fore and afterpeak bulkheads, or as near thereto as practicable.
- (c) In ships 330 feet in length and upwards a double bottom shall be fitted amidships, and shall extend to the fore and afterpeak bulkheads, or as near thereto as practicable.

(2) Where a double bottom is required to be fitted the inner bottom shall be continued out to the ship's sides in such a manner as to protect the bottom to the turn of bilge. Such protection will be deemed satisfactory if the line of intersection of the outer edge of the margin plate with the bilge plating is not lower at any part than a horizontal plane passing through the point of intersection with the frame line amidships of a transverse diagonal line inclined at 25 degrees to the base line and cutting it at a point one-half the ship's moulded breadth from the middle line.

(3) Wells constructed in the double bottom in connection with the drainage arrangements shall not extend downwards more than necessary, nor shall they be less than 18 inches from the outer bottom or from the inner edge of the margin plate. A well extending to the outer bottom is, however, permitted at the after end of the shaft tunnel of screw ships.

(4) The inner bottom shall only be pierced for such manholes as are necessary for access and these shall be fitted with efficient covers having such arrangements as will secure effective watertight joints. All air and sounding pipes shall be effectively protected against risk of damage from cargo, coal, etc.

9. All watertight bulkheads decks, recesses, etc., forming part of the subdivision arrangements, and watertight ventilators and trunks, watertight tunnels, watertight inner skins and oil fuel tanks which form part of the structure of the ship should be of such strength and so constructed as to be capable of supporting with a proper margin of resistance, the pressure due to a head of water up to the margin line. The construction of these parts of the structure shall be in accordance with requirements for home-trade ships as provided in the Board of Trade "Instructions as to the Survey of Passenger Steamships" Volume I, 1928 edition, as supplemented.

10. (1) After completion all watertight bulkheads shall be examined by a Steamship Inspector and shall be subject to a hose test.

(2) After completion, a hose or flooding test shall be applied to watertight decks and a hose test to watertight trunks, ventilators and tunnels.

(3) The pressure of the water in the hose shall not be less than 30 pounds per square inch.

11. (1) The forepeak shall be tested by filling it with water up to the level of the deepest subdivision load line.

(2) Double bottoms, duct keels and inner skins shall be subjected to a head of water up to the margin line.

Canada Shipping Act—continued

(3) Tanks which are intended to hold liquids and which form part of the subdivision of the ship shall be subjected to a head of water up to the deepest subdivision load line or to a head corresponding to two-thirds of the depth from the keel to the margin line in way of the tanks, or three feet, whichever is the greatest.

These tests are for the purpose of ensuring that the subdivision structural arrangements are watertight, and are not to be regarded as a test of the fitness of any compartment for the storage of oil fuel or for other special purposes for which a test of a superior character may be required, depending on the height to which the liquid has access in the tank or its connections.

12. (1) The number of openings in watertight bulkheads shall be reduced to the minimum compatible with the design and efficient working of the ship. Satisfactory means shall be provided for closing these openings.

(2) Special consideration shall be given to the arrangement of air trunks or tunnels for forced draught so as to avoid, so far as possible, piercing the watertight bulkheads.

(3) Within the machinery space and apart from those leading to bunkers and tunnels, there shall not be more than one opening in each main transverse bulkhead for intercommunication and these openings shall be so located as to have their sills as high as practicable.

13. (1) Doorways, manholes or access openings are not permitted—

(a) In the collision bulkhead below the margin line,

(b) In the main transverse bulkheads dividing a cargo space from an adjoining cargo space or from a permanent or reserve bunker, except as provided for in paragraph (3) of regulation 26 of these Regulations.

(2) The collision bulkhead may be pierced below the margin line by not more than one pipe for dealing with fluid in the forepeak tank, provided that the pipe is fitted with a screw-down valve capable of being operated from above the bulkhead deck, the valve chest being secured to the collision bulkhead inside the forepeak.

(3) Openings closed only by portable bolted plates are not permitted in watertight bulkheads outside the machinery space. Such openings may be permitted for special purposes within the machinery spaces, subject to the condition that they will be closed and made watertight before the ship leaves port and not opened at sea except in the case of urgent necessity.

(4) Openings closed by sluice valves are not permitted in the watertight subdivision bulkheads.

14. Where pipes, electric cables, etc., pass through the main transverse bulkheads, arrangements shall be made to ensure that the watertightness of the bulkheads is not impaired.

15. The arrangement and efficiency of the means for closing each opening in watertight bulkheads shall be consistent with its intended purpose and with the position in which it is fitted, and shall be generally to the satisfaction of the Chairman of the Board of Steamship Inspection.

Watertight doors fitted in bulkheads between permanent and reserve bunkers shall always be accessible except as provided in subparagraph (c) of paragraph (5) of regulation 26 of these Regulations.

16. (1) The only types of watertight doors permissible are hinged doors and sliding doors.

Canada Shipping Act—continued

(2) A sliding door may have a horizontal or vertical motion. If required to be hand operated only, the gearing shall be capable of being worked at the door itself and also at an accessible position above the bulkhead deck.

17. The permissible classes of watertight doors are:—

Class 1—Hinged doors fitted with catches workable from each side of the bulkhead.

Class 2—Sliding doors operated by hand gear only.

Class 3—Sliding doors with brass rubbing faces operated by hand gear only.

Class 4—Sliding doors with brass faces operated by a releasing arrangement above the bulkhead deck as described in regulation 19 of these Regulations, and by hand gear.

Class 5—Sliding doors with brass rubbing faces operated by power from a central control, as described in regulation 20 of these Regulations, and by hand gear.

18. The mechanism required for closing sliding watertight doors by hand from above the bulkhead deck shall be expeditious in its action and sufficiently powerful to be capable of closing the door under unfavourable circumstances. The operating gear shall be accessible in all cases. It should, if possible, consist of a crank handle or a wheel and handle, and be permanently attached to the shafting so as to be always ready for use. If this cannot be done, the handle or wheel must be stowed immediately alongside the working position. There shall be an index at the operating position showing whether the door is open or closed. The lead of shafting to the door should be as direct and free from complications as possible. All screws, rods and other apparatus for raising and lowering watertight doors shall be provided with proper lubrication, and guarded where necessary.

19. If a door is required to be closed by dropping or by the action of a dropping weight, it shall be fitted with a suitable arrangement to regulate the closing movement and the gearing shall be so arranged that the door can be released both at the door itself and at an accessible position above the bulkhead deck. Hand gear shall also be provided, so arranged as to operate at the door itself and above the bulkhead deck, and also so that, after being disengaged for dropping, it can be quickly re-engaged from either the upper or the lower position.

20. If a door is required to be power operated from a central control, the gearing shall be so arranged that the door can be operated by power also at the door itself. The arrangement shall be such that the door will close automatically if opened by the local control after being closed from the central control, and also such that any door can be kept closed from the local arrangements which will prevent that door from being opened from the central control. Such power operated doors shall be provided with hand gear, workable both at the door itself and from an accessible position above the bulkhead deck.

The arrangements shall comply with the following conditions:—The power shall always be available at sea and ample for working the doors. The source of power shall be in duplicate, each power unit being sufficient to work the whole of the doors. An indicator shall be fitted at the central control station showing when power is available, and it shall be possible to close all the power worked doors practically simultaneously. The fluid used in a hydraulic system shall be a non-freezing mixture when low temperatures are likely to be encountered.

Canada Shipping Act—continued

The hand operating gear required to be fitted in connection with power worked doors shall be permanently attached to the doors unless satisfactory means are provided for speedily and reliably engaging it from above the bulkhead deck. In any case the arrangement shall be such that when the power is shut off there is no danger of vertical doors dropping, and that, in the event of the power failing, the working of the hand gear on doors worked by hydraulic power will not be prevented or hindered by waterlock in the power or closing gear pipe.

If bilge floats are fitted the arrangements must not interfere with any other part of the closing system.

21. In all classes of sliding doors, indicators shall be fitted at all operating stations other than the door itself, showing whether the door is opened or closed.

The arrangements at the door shall be such as to minimize the possibility of tampering to cause the indicator to show a door closed, when open.

22. (1) Power doors and doors which close by dropping or by the action of a dropping weight in passenger, crew and working spaces, which are capable of being closed from a position from which the doors are not visible, shall be fitted with sound signals for giving sufficient warning in all cases when they are about to be closed. One movement at the closing station shall be sufficient both to sound the signals and to close the doors and the signals shall work effectively even when the vessel has a list.

(2) When the doors are not capable of being closed from a central control station, means of communication by telegraph, telephone or otherwise (such as by suitably distributed gongs sounding loudly an agreed signal), are to be provided whereby the responsible officer may rapidly communicate with the members of the staff responsible for closing doors.

23. (1) Watertight doors shall be constructed to designs approved by the Chairman of the Board of Steamship Inspection. Doors giving direct access to any spaces containing bunker coal shall, together with the frames, be made of cast or wrought steel. In other positions, doors and frames may be made of cast iron.

Brass rubbing faces of sliding doors may be formed either on the door or frame and shall be protected against damage while a door is being closed.

(2) When screw gear is used for operating the door, the screw shall work in a gunmetal nut.

(3) Vertical doors should have no grooves at the bottom in which dirt may lodge so as to prevent the door closing properly. The bottom bearing of the door may, however, be of skeleton form so arranged that dirt cannot easily lodge. The bottom edge of vertical doors shall be tapered or bevelled to cut through coal or other obstacles.

(4) The frames shall be carefully fitted to the bulkheads and the joints should be of a kind that will not be liable to deteriorate with age or be readily injured by heat. Thin hardwood may be used in ordinary cases, but for bunkers or where oil may take fire the jointing must be indestructible by fire.

(5) Satisfactory arrangements shall be made by means of screens or otherwise to prevent coal from interfering with the closing of watertight bunker doors.

(6) Arrangements shall be made for the proper lubrication and protection of the operating gear of all watertight doors.

Canada Shipping Act—continued

24. (1) Watertight doors shall be tested by water pressure to a head up to the margin line. The test shall be made before the ship is put in service either before or after the door is fitted. Where there are several doors of the same type to be fitted in a ship, one of the type may be selected for test at the maker's works and, provided the result of the test is satisfactory, the remaining doors of the type may be accepted without such tests.

In closing the doors for the test to be applied, the power exerted should not exceed that available for operating the doors on board the ship for which they are intended. The framework in the workshop to which the door frame is secured for the purpose of testing, should not be such as to give greater reinforcement to the frame than the stiffening on the bulkhead to which it is to be attached.

The head of water should be taken from the bottom of the door to the margin line in way of the bulkhead on which the door is fitted, but in no case should the test pressure be less than 20 feet head for sliding doors and 10 feet head for hinged doors. The purpose of the test is to show that the door is of sufficient strength and reasonably tight under the test pressure.

(2) After watertight doors have been fitted in place on the bulkheads—

- (a) the doors, including the watertightness of the attachment of the door frames to the bulkheads, shall be hose tested in the manner required for bulkheads;
- (b) all the doors shall be tested by being operated by hand, and by power if provided, and the times taken to close shall be noted. In the case of bunker doors the closing tests shall be made when coal is in the bunkers;
- (c) the indicators and warning signals shall be tested.

25. Where in these Regulations it is required that watertight bulkheads, watertight flats, watertight doors and such parts forming part of the subdivision of a ship are to be tested, the tests shall be made in the presence of a Steamship Inspector.

26. (1) Where it is stated in this regulation that a watertight door should be of a specified class, a door of a class bearing a lower number in the table in regulation 17 of these Regulations may not be fitted, but a door of a class bearing a higher number may be fitted.

(2) Hinged watertight doors in passenger, crew, and working spaces are only permitted above a deck, the underside of which at its lowest point at side is at least 7 feet above the deepest subdivision load line, and they are not permitted in such spaces below such a deck.

(3) Hinged watertight doors of satisfactory construction may be fitted in bulkheads dividing cargo between deck spaces, in levels in which side cargo doors would be permitted under the provision of regulation 33 of these Regulations. Where it is proposed to fit such doors, the number and arrangements shall be submitted to the Chairman of the Board of Steamship Inspection for consideration, and a statement shall be required from the owners certifying as to the absolute necessity of such doors.

(4) All other watertight doors shall be sliding doors and when situated with their sills above the deepest subdivision load line may, subject to power doors being required in special cases under the provisions of subparagraph (d) of paragraph (5) of this regulation, be hand-operated sliding doors (Class 3).

Canada Shipping Act—continued

(5) When any watertight doors which may be sometimes opened at sea, excluding those at the entrances of tunnels, are fitted in the main transverse watertight bulkheads at such a height that their sills are below the deepest subdivision load line, the following shall apply, subject to power-operated doors (Class 5) being required in special cases under the provisions of subparagraphs (c) and (d) of this paragraph:—

- (a) When the number of such doors exceeds five they shall be power-operated (Class 5) and shall be capable of being simultaneously closed from a station situated on the bridge, the closing of these doors being preceded by a warning sound signal.
- (b) When the number of such doors does not exceed five—
 - (i) if the criterion numeral does not exceed 30, they may be Class 3 doors operated by hand only;
 - (ii) if the criterion numeral exceeds 30 but does not exceed 60, they may be either Class 4 dropping doors fitted with releasing gear and hand gear operated at the door and from above the bulkhead deck, or doors operated by power;
 - (iii) if the criterion numeral, exceeds 60, they shall be power operated (Class 5) and shall be capable of being simultaneously closed from a station situated on the bridge, the closing being preceded by a warning signal.
- (c) If watertight doors which have sometimes to be open at sea for the purpose of trimming coal are fitted between bunkers in the between decks below the bulkhead deck, these doors shall be power operated (Class 5).
- (d) When trunkways in connection with refrigerated cargo are carried through more than one main transverse watertight bulkhead, and the sills of the openings are less than 7 feet above the deepest subdivision load line, the watertight doors at such openings shall be power operated (Class 5).
- (e) Where trunkways or tunnels for access from crew's accommodation to the stokehold, for piping or for any other purpose, give access to the machinery spaces, each such trunkway or tunnel shall be fitted with a watertight door of the type required by its location in the ship.

27. (1) The criterion numeral referred to in subparagraph (b) of paragraph (5) of the last preceding regulation shall be determined by the following formulae:—

where C_s = the criterion numeral;

L = length of the ship;

M = the volume of the machinery space with the addition thereto of the volume of any permanent oil fuel bunkers which may be situated above the inner bottom and before (or abaft) the machinery space;

P = the whole volume of the passenger spaces below the margin line;

V = the whole volume of the ship below the margin line;

N = number of passengers for which the ship is to be certified; and

$P_1 = \cdot 6LN$ where $\cdot 6L$ represents the specific volume per passenger in cubic feet for criterion purposes. (Where, however, it is shown to the satisfaction of the Chairman of the Board of

Canada Shipping Act—continued

Steamship Inspection that the value of $\cdot 6LN$ is greater than the sum of P and the whole volume of the actual passenger spaces above the margin line, the lower figure may be taken provided that the value P_1 used is not less than $\cdot 4LN$.)

When P^1 is greater than P

$$C_s = 72 \frac{M + 2P_1}{V + P_1 - P} \dots\dots\dots (i)$$

and in other cases

$$C_s = 72 \frac{M + 2P}{V} \dots\dots\dots (ii)$$

(2) For ships not having a continuous bulkhead deck, the volumes are to be taken up to the actual margin lines used in determining the floodable lengths.

28. (1) The number of openings in the ship's sides below the margin line shall be reduced to the minimum compatible with the design and proper working of the ship.

(2) The arrangement and efficiency of the means for closing each such opening shall be consistent with its intended purpose and the position in which it is fitted, and shall be to the satisfaction of the Chairman of the Board of Steamship Inspection.

29. (1) The number of side scuttles which are capable of being opened shall be reduced to a minimum consistent with the requirements of the ship's service.

(2) If, in a between decks the sills of any side scuttles are below a line drawn parallel to the bulkhead deck at side and having its lowest point $\cdot 025B$ feet above the deepest subdivision load line, all side scuttles in that between decks shall be of a non-opening type.

(3) Other side scuttles may be of any ordinary opening type.

(4) If, in a between decks, the sills of any of the side scuttles of the opening type are above the line referred to in paragraph (2) of this regulation and are below a line drawn parallel to the bulkhead deck at side and having its lowest point $\cdot 025B$ plus $4\cdot 5$ feet above the waterline at which the ship is floating at the time of departure from any port, all such side scuttles in that between decks shall be of such construction as will effectively prevent any person opening them without the consent of the master of the ship.

(5) Efficient and permanently attached hinged inside deadlights arranged so that they can be easily and effectively closed and secured watertight shall be fitted to all side scuttles—

(a) which are required to be of a non-opening type;

(b) which are to be fitted within one-eighth of the ship's length from the forward perpendicular;

(c) which are to be fitted in a between decks between the line referred to in paragraph (2) of this regulation and a line drawn parallel to and 12 feet above it;

(d) which will not be accessible during navigation;

(e) which are to be fitted in spaces intended for the accommodation of sailors and firemen;

Canada Shipping Act—continued

- (f) which are to be fitted in spaces intended for the accommodation of steerage passengers.
- (6) Side scuttles fitted below the bulkhead deck, other than those referred to in the preceding subparagraph, shall be fitted with efficient inside deadlights which may, however, be portable, provided each such deadlight is stowed adjacent to the side scuttle to which it belongs.
- (7) No side scuttles shall be fitted in any spaces which are appropriated exclusively to the carriage of cargo or coal.
- (8) Automatic ventilating side scuttles shall not be fitted in the ship's sides below the margin line without the special sanction of the Chairman of the Board of Steamship Inspection.
- (9) The side scuttles mentioned in this regulation shall be circular side scuttles of substantial construction of the usual dimensions and suitable for the position in which they are to be fitted, provided that if any side scuttle is intended to be used which is of unusual construction or form it shall be of a design approved by the Board of Steamship Inspection.
- (10) Any special rules for side scuttles which may be laid down in connection with the Load Line Rules for Ships making Voyages on Lakes or Rivers shall also be complied with.

30. (1) The number of scuppers, sanitary discharges and other similar openings shall be reduced to the minimum either by making each discharge serve for as many as possible of the sanitary and other pipes, or in any other satisfactory manner.

- (2) (a) Discharges led through the ship's sides from spaces below the margin line shall be fitted with efficient and accessible means for preventing water from passing inboard. Each separate discharge shall have either one automatic non-return valve fitted with a positive means of closing it from above the bulkhead deck, or two automatic non-return valves without such means, the upper of which valves being so situated above the deepest subdivision load line as to be always accessible for examination under service conditions.
- (b) Where a positive action valve is fitted, the operating position above the bulkhead deck shall always be readily accessible and means shall be provided for indicating whether the valve is free or closed down.
- (c) Where the two-valve system is adopted the higher valve shall be of the horizontal balanced type normally closed.
- (d) The geared valve, or the lower of the two non-geared valves shall be fitted in a strong valve box secured to the shell plating.
- (e) Valves required under this regulation shall not be of cast iron where attached to the sides of the ship.

31. (1) Discharge pipes, no matter of what material they may be made, shall not be fitted in a direct line between the outboard openings and the connections with the decks, water closets or similar fittings, but shall be arranged with bends or elbows of substantial metal, other than cast iron or lead.

(2) The pipes and valves shall be protected by substantial casings as may be necessary in cargo or bunker spaces. The casings need not be watertight.

Canada Shipping Act—continued

(3) When water closets of the under-waterline types are to be fitted the arrangements shall be to the satisfaction of the Chairman of the Board of Steamship Inspection.

(4) Where necessary, arrangements shall be made for the drainage of a watertight deck, and the drainage pipes shall be so fitted with valves, or disposed in such a manner as to avoid risk of water passing from a damaged to an undamaged compartment.

32. (1) (a) The inboard opening of each ash chute, rubbish chute, etc., shall be fitted with an efficient cover.

(b) If the inboard opening is situated below the margin line the cover shall be watertight, and in addition an automatic non-return valve shall be fitted in the chute in an easily accessible position above the deepest subdivision load line. This valve shall be provided with a local means for securing it in the closed position.

(2) The foregoing requirements do not apply to those ash ejectors and expellers, the inboard openings of which must necessarily be below the deepest subdivision load line in the stokehold, provided that such ejectors and expellers are fitted with efficient valves and other fittings for preventing water entering the ship through them.

33. When gangway, cargo or coaling ports are to be fitted below the margin line they shall be of sufficient strength.

When gangway, cargo or coaling ports are to be fitted partly or entirely below the deepest subdivision load line the arrangement shall be to the satisfaction of the Board of Steamship Inspection, which shall also be satisfied that such ports are necessary for the working of the ship.

34. (1) Main and auxiliary inlets and discharges shall be so arranged as to prevent accidental admission of water into the ship. Cocks or valves shall be fitted between the pipes and the shell plating. These must be attached to the latter and so arranged that they can be easily and expeditiously opened or closed at any time.

The cocks, valves and the whole lengths of the pipes connected to them shall be accessible at all times.

(2) To prevent the accidental admission of water into the ship owing to the fracture of main or auxiliary inlet or discharge valve chests which, if fastened directly to the skin of the ship, would require to have long necks, such chests are to be made with the necks as short as practicable, and are to be attached to wrought steel boxes built on to the skin of the ship. Chests having other than short necks are to be made of cast steel.

35. (1) Side scuttles, gangway, cargo and coaling ports, and other means for closing openings in the ship's sides above the margin line shall be of efficient design and construction and of sufficient strength, having regard to the spaces in which they are fitted and their positions relative to the deepest subdivision load line.

(2) In superstructures situated immediately above the bulkhead deck, efficient hinged deadlights, arranged so that they can be effectively closed and secured watertight, shall be fitted to scuttles which are—

(a) Within one-eighth of the ship's length abaft the stem in forecastles which are closed at the after end, or

(b) In spaces which are intended, or capable of being readily adapted, for the stowage of cargo, fuel, or stores, if these spaces are closed at both ends, or are so arranged that they can be readily so closed when required.

Canada Shipping Act—continued

(3) Side scuttles in spaces above the bulkhead deck other than those referred to in paragraph (2) of this regulation shall either be provided with deadlights which may be portable, or be designed to receive outer plugs; such portable deadlights or plugs are to be provided to the extent of 25 per cent of the total number of side scuttles not having efficient hinged deadlights and they shall be stowed in suitable positions.

36. (1) All openings in the exposed weather deck shall have coamings of ample height and strength and shall be provided with efficient means for expeditiously closing them weathertight.

(2) Freeing ports and/or scuppers shall be fitted as necessary for clearing the weather deck of water in heavy weather.

37. (1) In passenger and crew spaces, practicable means of exit to the open deck shall be provided for the occupants from each watertight compartment.

(2) Practicable means of escape for the crew shall be provided from each engine room, shaft tunnel, stokehold compartment, and other working spaces, independent of watertight doors.

38. (1) Ships shall be fitted above the bulkhead deck with fire-resisting bulkheads of such construction, and so fitted, as to serve the purpose of retarding the spread of fire. The mean distance between any two consecutive bulkheads of this description shall not in general exceed 131 feet. Recesses and steps and the means for closing all openings in these bulkheads shall be fire-resisting and flamtight.

(2) (a) Steel bulkheads of scantlings and stiffening equal to those required for watertight bulkheads in the 'tween decks immediately below the bulkhead deck may be accepted as fire-resisting bulkheads, provided they are not lined with inflammable material.

Any other fire-resisting material may be used for these bulkheads, provided it is shown by suitable experiments that bulkheads so constructed are capable of withstanding a fire of considerable fierceness and high temperature for a reasonable period, say, 1500° Fahrenheit for one hour.

(b) Recesses and steps in fire-resisting bulkheads shall be of equivalent construction, from the fire-resisting point of view, to the bulkheads themselves.

(c) Any openings in fire-resisting bulkheads should be closed with doors which are, if practicable, of similar construction. If hinged doors are fitted, each shall be secured by suitable clips or slipbolts workable from either side of the bulkhead, and the number of the clips or slipbolts shall be sufficient to prevent the door from warping under the conditions mentioned in subparagraph (a) of this paragraph.

39. (1) Every new ship shall be inclined upon its completion and the elements of its stability determined. The inclining experiment shall be conducted in the presence of a Steamship Inspector.

(2) The owner shall supply the operating personnel with such information as may appear necessary for their guidance in loading and ballasting every new ship to ensure sufficient stability in all usual service conditions.

A copy of this information shall be forwarded to the Chairman of the Board of Steamship Inspection.

(3) If any permanent ballast is placed in a ship its nature, amount, and distribution shall be included in the information supplied under the provisions of paragraph (2) of this regulation.

Canada Shipping Act—continued

40. Ships propelled by steam shall be provided with an efficient pumping plant capable of pumping from and draining any watertight compartment under all practicable conditions after a casualty whether the ship is upright or listed. Where necessary, wing suctions shall be fitted. Where close ceiling is fitted over the bilges, arrangements shall be made whereby water in a hold compartment may find its way to the suction pipes. Efficient means shall also be provided for draining water from insulated holds.

41. (1) All pipes from the pumps which are required for draining cargo or machinery spaces shall be entirely distinct from pipes which may be used for filling or emptying spaces where water or oil is carried.

(2) Bilge suction pipes shall not be carried through the double bottom tanks, if it is possible to avoid doing so. They shall in all cases be efficiently secured in position and strapped so as to prevent movement, and shall be made in suitable lengths with flanged joints. Efficient expansion joints or bends should be provided in each range of pipes, and where the connection at bulkheads, etc., are made with lead bends the radii of the bends and the distance between the axes of the straight parts of the pipes shall each be not less than three diameters, and the length of the bend shall be at least eight diameters of the pipe.

Lead pipes shall not be used under coal bunkers or oil fuel storage tanks, nor in boiler or machinery spaces, including motor-rooms, in which oil settling tanks or fuel pump units are situated.

42. The diameter of bilge suction pipes in inches shall be in accordance with the following formulae to the nearest $\frac{1}{4}$ inch, provided that no branch pipe need be more than 4 inches in diameter,

$$\sqrt{\frac{L(B + D)}{2500}} + 1, \text{ for main line suction to the pumps, and}$$

$$\sqrt{\frac{1(B + D)}{1500}} + 1, \text{ for branch suctions to cargo and machinery spaces.}$$

where L =length of ship, in feet,

B =breadth of ship, in feet,

D =moulded depth to bulkhead deck, in feet and

1 =length of compartment, in feet.

43. (1) The arrangement of the bilge and ballast system shall be such as to prevent the possibility of water passing from the sea and from water ballast spaces into the cargo and machinery spaces, or from one compartment to another. An approved arrangement of lock-up valves or of blank flanges shall be provided to prevent any deep tank being inadvertently run up from the sea when containing cargo, or pumped out through a bilge pipe when containing water ballast, and appropriate explanatory notices shall be conspicuously displayed near the fittings involved.

(2) Provision shall be made to prevent the compartment served by any bilge suction pipe being flooded, in the event of the pipe being severed or otherwise damaged, by collision or grounding, in any other compartment. For this purpose, where the pipe is at any part situated nearer the side of the ship than the extreme outward position permissible for the side of a recess in a bulkhead, or in a duct keel, there shall be fitted to the pipe in the compartment containing the open end, either a non-return valve or a screw-down valve with an operating rod led from a position above the bulkhead deck.

Canada Shipping Act—continued

(3) If a suction pipe is led from the engine-room to the forepeak it shall be provided with a screw-down valve capable of being operated from above the bulkhead deck, the chest being secured inside the forepeak to the collision bulkhead.

(4) All distribution boxes, cocks and valves in connection with the bilge pumping arrangement shall be in positions which are accessible at all times under ordinary circumstances. They shall be so arranged that, in the event of flooding, the emergency bilge pump required under the provisions of regulation 45 of these Regulations may be operative on any compartment. If there is only one system of pipes common to all pumps, the necessary cocks or valves for controlling the bilge suction must be workable from above the bulkhead deck. If in addition to the main bilge pumping system an emergency bilge pumping system is provided, it shall be independent of the main system and so arranged that the emergency pump is capable of operating on any compartment under flooding conditions.

(5) Operating rods fitted to the bilge cocks or valves shall be led as directly as possible and shall have an index plate near the upper end showing what each is for and how the valve or cock to which it is connected is opened and closed. Rods in cargo spaces and bunkers shall be suitably cased in to ensure free operation and avoid risk of damage.

(6) Valve chests, cocks, pipes and other fittings attached to the bulkheads or to the tunnel plating shall be secured by means of studs screwed through the plate, or by tap bolts, and not by bolts passed through clearing holes.

44. All water spaces and compartments, except the main engine and boiler compartments, shall be provided with straight sounding pipes which, together with the bilge pipes, shall be effectively protected where necessary against risk of damage from cargo, coal, etc., and a thick steel doubling plate shall be securely fixed below each sounding pipe for the rod to strike upon. Sounding pipes shall extend to positions at or above the bulkhead deck which are at all times accessible, provided that this requirement need not be applied to sounding pipes for bilges or double bottom tanks situated below machinery spaces if the ends of the sounding pipes are accessible in ordinary circumstances and are furnished with cocks, having parallel plugs with permanently secured handles so loaded that on being released they automatically close the cocks.

In the case of insulated holds, sounding pipes shall be provided both above and below the insulation. These sounding pipes shall be insulated and be not less than 2½ inches in diameter.

45. (1) Bilge pumps shall be provided as follows:—

Length of ship in feet	Pumps required	
	Power bilge pumps	Hand deck pumps
Under 100.....	One†	One of the lever type to each compartment, or one of the cranked type.
100 and under 250.....	One‡	One of the cranked type.
250 and under 300.....	One‡	Two of the cranked type.
300 and over.....	Two‡	

†Additional to the ordinary pump worked by main engines.

‡Additional to the ordinary pump worked by the main engines or equivalent engine room pump.

Canada Shipping Act—*continued*

Each of the pumps specified, unless of the hand lever type, shall be capable of drawing from any part of the vessel.

(2) When a hand deck pump is fitted to each compartment, the valves and cocks for regulating the bilge suctions need not be workable from above the bulkhead deck if they are in the same compartment as the power pumps.

(3) Where two independent power pumps are required, one pump shall be an emergency pump worked from a source of power situated above the bulkhead deck, which shall be available at all times when the vessel is occupied by passengers or crew and be independent of the main propelling plant.

(4) The hand pumps mentioned in the third column of the table may be dispensed with if two power pumps independent of the main engines are fitted, provided the requirements of the previous clause of this paragraph are complied with.

(5) Sanitary and ballast pumps, and general service pumps where not connected for use as feed pumps, may be accepted as independent power bilge pumps if fitted with the necessary connections to the bilge pumping system.

(6) Where practicable, the power bilge pumps shall be placed in separate watertight compartments so arranged or situated that these compartments cannot readily be flooded by the same damage. If the engines and boilers are in two or more watertight compartments the pumps available for bilge purposes shall be distributed through these compartments as far as is possible.

(7) Each independent power pump shall be capable of giving a speed of water through the main bilge pipe of not less than 400 feet per minute, and it shall have a separate direct suction to the compartment in which it is situated of a diameter not less than that of the bilge main. The direct suctions should be so distributed as to pump from either side of the ship by a direct suction, otherwise one independent power pump shall have also a fitting to which can be readily attached a flexible suction hose of sufficient length for use in case of emergency. In coal-fired ships there shall be a direct suction to the independent power pumps from each side of the boiler room, except that when the engine and boiler rooms are in the same watertight compartment a flexible suction hose may be provided of sufficient length to reach from a fitting on an independent power pump to either side of the boiler room.

Flexible suction hoses shall have an internal diameter half an inch larger than that of the largest branch suction required in the ship, but need not be larger than 4 inches in diameter.

(8) Manual pumps shall at all times be workable from positions on or above the bulkhead deck. If the two pumps of the cranked type referred to in paragraph (1) of this regulation are placed in a combined engine and boiler room and the height from the suction end of the bilge pipe to the flooded water line exceeds 24 feet, the barrel of each pump must be extended to above the flooded water line so that, in the event of the compartment being flooded, it may be possible to withdraw the bucket and tail valve for examination or overhauling. The lift of the pump, viz., the vertical height between the end of the suction pipe and the tail pipe, shall in no case exceed 24 feet. A shut-off valve or cock operated from the bulkhead deck, or a non-return valve, must be provided to enable either pump to be opened without affecting the efficiency of the other.

Canada Shipping Act—continued

(9) Main circulating pumps shall have direct suction connections provided with non-return valves to the lowest drainage levels in the machinery space, and of a diameter at least two-thirds that of the sea inlet. Where the fuel is, or may be coal, and there is no watertight bulkhead between the engines and boilers, a direct discharge overboard shall be fitted from at least one circulating pump, or, alternatively, a by-pass may be fitted to the circulating discharge.

46. The bilge pumping arrangements in ships propelled by internal combustion engines shall, so far as is practicable, be equivalent to those required for steamships of similar size, except as regards main circulating pumps.

47. The Chairman of the Board of Steamship Inspection may, in his discretion, exempt an "existing" ship from any of the regulations hereinbefore contained where, in his opinion, compliance with any such regulation would be impracticable or unreasonable.

48. The Chairman of the Board of Steamship Inspection may, in his discretion, exempt any ship from any of the provisions of regulation 8, regulations 12 to 26 inclusive, and regulations 28 to 34 inclusive of these Regulations, where, in his opinion, compliance with any such regulations would be impracticable or unreasonable, having due regard to the service conditions under which the ship is to operate.

49. (1) (a) Every ship shall be marked on each side with a subdivision load line placed at such height as will assure that the required degree of subdivision is maintained.

(b) Any ship which has spaces which are adapted for the accommodation of passengers and the carriage of cargo alternatively, may, if the owners so desire, have one or more additional subdivision load line marks corresponding to the subdivision draughts approved for the alternative conditions.

(c) The position of the subdivision load lines and the conditions under which they apply shall be determined in every case by the Chairman of the Board of Steamship Inspection.

(2) The freeboard corresponding to each of the subdivision load lines shall be measured at the same position and from the same deck line as the freeboards determined by the Load Line Rules for Ships making Voyages on Lakes or Rivers.

(3) In no case shall any subdivision load line mark be placed above the deepest load line as determined by the above mentioned Load Line Rules.

50. (1) The subdivision load line or load lines shall be marked on the ship's sides in conjunction with the load line marks required under the above mentioned Load Line Rules.

They shall be marked on the after side of the vertical line, this line being continued downwards if necessary to reach the position of the subdivision load line or load lines.

(2) Subdivision load lines shall be nine inches in length and one inch in breadth, and if only one subdivision load line is marked on the ship's sides it shall be identified by the notation C1 at the after end of the line.

Canada Shipping Act—continued

(3) If additional subdivision load lines are marked on the ship's sides in accordance with subparagraph (b) of paragraph (1) of regulation 49 of these Regulations, they shall be identified by the notation C2, C3, etc.

51. (1) Every ship shall be provided with a subdivision load line certificate which shall show—

- (a) that the ship complies with the provisions of these Regulations,
- (b) that the ship is marked with subdivision load lines as indicated therein,
- (c) the freeboard corresponding to each of the subdivision load lines,
- (d) the conditions under which the additional subdivision load line marks (if any) provided for under subparagraph (b) of paragraph (1) of regulation 49 of these Regulations may be used.

(2) A subdivision load line certificate shall be issued over the seal of the Minister of Transport, shall be registered by the Chairman of the Board of Steamship Inspection, and shall be marked to show that it is so registered.

(3) A subdivision load line certificate shall not be valid for more than 12 months from the date of issue.

(4) The subdivision load line certificate shall be posted up and exhibited in the ship in proximity to the inspection certificate.

(5) An inspection certificate as required under the provisions of section 390 of the Canada Shipping Act, 1934, shall not be issued in respect of any ship unless there is in force in respect of that ship a subdivision load line certificate, and no such inspection certificate shall be given for a period in excess of that for which the subdivision load line certificate is valid.

17. Regulations respecting watertight doors and other appliances

P.C. 1791

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 7th day of July, 1939.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of subsection (1) of section 447 of the Canada Shipping Act, 1934, is pleased to make the attached regulations, bearing the title "Regulations respecting Watertight Doors and other Appliances", to be applicable to steamships certified to carry more than twelve passengers, and they are hereby made and established accordingly.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING WATERTIGHT DOORS AND OTHER APPLIANCES

1. These Regulations shall apply to every steamship certified to carry more than twelve passengers.

Canada Shipping Act—continued

2. In these Regulations—

- (a) The bulkhead deck is the uppermost deck to which the transverse watertight bulkheads are carried.
- (b) The margin line is a line drawn parallel to the bulkhead deck at side line, and three inches below the upper surface of that deck at side, provided that in the case of a ship not having a continuous bulkhead deck the margin line is an assumed line up to which, having regard to sinkage and trim after flooding, the sides of the ship and the bulkheads are watertight.

3. The following appliances shall be securely closed so as to be watertight before the steamship proceeds to sea, and shall be kept closed while the steamship is at sea:—

- (a) Hinged watertight doors below the margin line which are fitted in main transverse bulkheads dividing cargo between deck spaces;
- (b) Side scuttles in any between deck space, wherein the sill of any side scuttle which can be opened is below a line drawn on the side of the steamship parallel to the bulkhead deck and having its lowest point four and a half feet, in addition to two and a half per cent of the breadth of the steamship, above the water at the time when the steamship proceeds to sea;
- (c) Side scuttles below the margin line which will not be accessible while the steamship is at sea, together with their deadlights;
- (d) Gangway, cargo and coaling ports below the margin line;

provided that in fair weather in tropical waters paragraph (b) of this regulation shall have effect as if “three and a half feet” were substituted for “four and a half feet”.

For the purpose of this regulation an appliance shall be deemed to be below the margin line if the sill thereof is below that line, and a side scuttle mentioned in paragraph (b) of this regulation shall not be deemed to be closed unless it is locked.

4. Every watertight door fitted in a main transverse bulkhead, not being a door mentioned in paragraph (a) of regulation 3 of these Regulations, shall be kept closed while the steamship is at sea, except so far as it is necessary to open it for the working of the ship, and when open shall be kept ready to be closed forthwith.

5. Every portable plate closing an opening in a bulkhead, being an opening which is wholly or partly below the margin line, shall be in place before the steamship proceeds to sea, and no such plate shall be removed at sea except in case of urgent necessity. In replacing any such plate all reasonable precautions shall be taken to ensure that the joints are watertight.

6. The cover and valve of every ash chute, rubbish chute or other similar appliance, having its inboard opening below the margin line, shall be kept securely closed when the appliance is not in use.

7. The opening and closing of all such watertight doors and other appliances as are mentioned in paragraphs (a), (b) and (c) of regulation 3, and regulations 4 and 6 of these Regulations, and of the closing mechanism of all scuppers having their inboard opening below the margin line, shall

Canada Shipping Act—continued

be practised once a week, and also before the steamship proceeds to sea on any voyage which is likely to last more than a week, provided that while the steamship is at sea—

- (a) the opening and closing of all such watertight doors which are in use and are hinged or operated by power shall be practised daily,
- (b) nothing in this regulation shall be taken to authorize the opening of any watertight door or other appliance which is required by regulation 3 of these Regulations to be kept closed.

8. Every valve, the closing of which is necessary to make any compartment watertight, and every watertight door in a main transverse bulkhead, and the mechanism and indicators connected therewith, shall be inspected at least once a week.

9. (1) A record shall be entered in the official logbook, or, where the ship is not required to be provided with an official logbook, a permanent record shall be kept—

- (a) of the time of opening and closing of every watertight door operated by power which is fitted between bunkers in the between decks below the bulkhead deck, every such portable plate as is mentioned in regulation 5 of these Regulations, and every such watertight door and other appliance as is mentioned in regulation 3 of these Regulations; and
- (b) of every occasion on which the opening and closing of watertight doors and other appliances is practised on board the ship in pursuance of these Regulations; and
- (c) of every occasion on which watertight doors and other appliances have been inspected in pursuance of these Regulations.

(2) This record shall be produced on demand of a Steamship Inspector or other person directed thereto by the Minister.

10. (1) Appropriate notices shall be posted up in the chart room of every steamship, stating that the appliances described in regulation 3 of these Regulations are required to be closed before the ship proceeds to sea and to be kept closed while the ship is at sea. In the case of appliances closing openings in watertight bulkheads, such notices shall also be posted up at the appliances on each side of the bulkhead. In the case of side scuttles, such notices, properly placed, shall also be posted up in the spaces within which the side scuttles are situated.

(2) Appropriate notices shall be posted up in the chart room of every steamship, stating that the watertight doors described in regulation 4 of these Regulations are required to be kept closed while the ship is at sea, except so far as it is necessary to open them for the working of the ship. Similar notices shall be posted up at the doors on each side of the bulkhead.

(3) Appropriate notices shall be posted up in the chart room of every steamship, stating that portable plates, as described in regulation 5, are required to be in place before the ship proceeds to sea, and are not to be removed at sea except in case of urgent necessity. Similar notices shall also be posted up at such openings on each side of the bulkhead.

(4) Appropriate notices shall be posted up at every ash chute, rubbish chute, and similar appliance having its inboard opening below the margin line, stating that such appliance is required to be securely closed when not in use.

Canada Shipping Act—continued

18. Regulations for the Registration of Government Ships

P.C. 5894

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 22nd day of October, 1940.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS under the provisions of section 16 of the Canada Shipping Act, 1934, power is given to the Governor in Council to make regulations with respect to the manner in which Government ships may be registered in Canada as British ships for the purposes of the said Act;

AND WHEREAS under the provisions of said section 16 it is further provided that, upon the registration of Government ships according to those Regulations, the Canada Shipping Act, 1934, subject to any exceptions and modifications which may be made by Order in Council, either generally or as respects any special class of Government ships, shall apply to Government ships registered in accordance with those Regulations as if they were registered in manner provided by the said Act;

AND WHEREAS it is deemed advisable that certain of the provisions of the Canada Shipping Act, 1934, shall apply to Government ships as defined in the said Act.

THEREFORE, the Deputy of His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, and under authority of section 16 of the Canada Shipping Act, 1934, is pleased to make the following Regulations with respect to the manner in which Government ships may be registered in Canada as British ships and they are hereby made and established accordingly,—

REGULATIONS

1. An application for the registry of a Government ship shall be made in writing under the signature of the Head or Deputy Head of the department of Government controlling the ship. Such application shall contain the following particulars,—

- (i) A statement of the name and description of the ship.
- (ii) A statement of the time when and place where the ship was built; or, if the ship was foreign built and the time and place of building are unknown, a statement to that effect and of her foreign name;
- (iii) A statement of the nature of the title to the said ship, whether by original construction by or for the Government or by purchase, capture, condemnation or otherwise, and a list of the documents of title, if any, in case she was not originally constructed by or for the Government.
- (iv) A statement of the name of the Master.
- (v) A statement that the ship is controlled by the department of which the applicant is the Head or Deputy Head.

Canada Shipping Act—continued

2. The Registrar, on receiving an application under the last preceding regulation, shall—

- (i) enter the ship in the Register Book as belonging to His Majesty the King in right of the Dominion of Canada or of a Province, as the case may be, represented by the Head of the department, and shall also enter therein—
- (ii) the name of the port to which she belongs.
- (iii) the particulars stated in the application for registration.
- (iv) the details comprised in the Surveyor's Certificate.

3. On the registry of a Government ship, the Registrar shall retain in his possession the Surveyor's Certificate and the application for registry and any documents of title mentioned in such application.

4. Upon the transfer of a registered Government ship by Bill of Sale, the department for the time being shall be the transferor, and the Bill of Sale shall be in the Form A in the first part of the sixth schedule to the Canada Shipping Act, 1934, omitting the covenant contained in that form, and any such Bill of Sale shall be signed by the Head or Deputy Head of the department on behalf of the department.

5. The application for a Certificate of Sale, referred to in sections 54 to 57 and sections 59 61 of the Canada Shipping Act, 1934, may be made in respect of a Government ship by the Head or Deputy Head of the department.

6. The term "seaman" in section 163 of the Canada Shipping Act, 1934, shall not be deemed to mean or include any seaman belonging to the Naval Services of His Majesty in right of any part of His Majesty's dominions.

7. Where any provision of the Canada Shipping Act, 1934, which by virtue of these Regulations is applicable to Government ships imposes any duty or liability or confers any right or power upon or contemplates any act being performed by the owner of a ship, such duty, liability, right, or power shall, subject always to other provisions of these Regulations, be carried out, borne, or exercised by the Head or Deputy Head of the department in respect of which the ship is registered.

8. The following provisions of the Canada Shipping Act, 1934, shall not apply to Government ships registered in pursuance of these Regulations, namely:

Sections 3, 4, 6, 7 (4), 12 (3) and (5), 13 to 15, 17, 18, 21, 24, 40 to 43, 46 to 53, 54 to 57 so far as they relate to mortgages, 58 to 61 so far as they relate to mortgages, 64 to 66, 68, 70 to 75 (2) and (3), 78, 84 to 88, 90, 91, 99, 100, 104, 132 (2), 152 to 180, 184, 185, 186, 188, 189, 190, 191 (1) and (2), 192 (1), (2), (3) and (4), 193, 195 (1) and (2), 196, 197, 198, 199 (1) and (2), 203, 204, 206, 210, 212, 213, 214, 217 (2), 220, 225, 228, 243 to 261, 270 (12), 289, 292 (2) so much thereof as is subsequent to the word "Master" where it first occurs, 292 (3), 456 (4), (5), (6), (7) and (8), 457, 458 to 465, 549 (d) and 559 (3) so far as they relate to any papers or documents belonging to or in the possession of the Crown, 583, 639 (3), 643 (b), 644, 645, 666 to 674, 686 (2), (3) and (4), 689, 691.

Provided always that no provisions of the Canada Shipping Act, 1934, which, according to a reasonable construction, would not apply in the case of Government ships shall be deemed to apply to such ships by reason only that its application is not hereby expressly excluded.

Canada Shipping Act—continued

9. Notwithstanding the provisions of Regulation 8 of these Regulations, the following provisions of the Canada Shipping Act, 1934, shall apply to Government ships which have been entrusted for management and/or operation to the Canadian Government Merchant Marine, Limited, or other similar agency, namely:—

Sections 152 to 180, 184, 185, 186, 188, 189, 190, 191 (1) and (2), 192 (1) (2) (3) and (4), 193, 195 (1) and (2), 196, 197, 198, 199 (1) and (2), 203, 204, 206, 210, 212, 213, 214, 217 (2), 220, 225, 228, 243 to 261, 270 (12), 289, 292 (2) so much thereof as is subsequent to the word "Master" where it first occurs, 292 (3), 456 (4) (5) (6) (7) and (8), 457, 458 to 465, 583, 643 (b), 644, 645, 666 to 674, 686 (2) (3) and (4), 689, 691.

N. A. ROBERTSON,
Clerk of the Privy Council.

19. Regulations respecting the survey or inspection of non-passenger steamships—classification societies listed

P.C. 9933

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 3rd day of November, 1942.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS section 390 of the Canada Shipping Act, 1934, provides, *inter alia*, for the acceptance of survey or inspection by an exclusive surveyor to a classification society approved by the Minister, subsection (3) of section 390 reading as follows:—

"(3) (a) For the purposes of this Section the Governor in Council may direct that survey or inspection by an exclusive surveyor to a society or association for the classification and registry of shipping, approved by the Minister, if made at a port or place outside Canada (other than a port in the United States of America on the Great Lakes and connecting waters, and other than at any port, place or territory that the Governor in Council may direct) may, subject to any regulations he may make, be deemed to have been made by a steamship inspector, and the report of the surveyor to any such classification society may be delivered to a steamship inspector who shall be entitled to act upon it and issue the necessary inspection certificate which shall be in a special form as directed by the Minister.

(b) This subsection shall not apply to passenger steamships."

AND WHEREAS Order in Council, P.C. 592, dated April 12, 1924, made under the provisions of the Canada Shipping Act, directed that survey or inspection by an exclusive surveyor to one of the following classification societies, namely,—Lloyd's Register of Shipping, British Corporation for the Survey and Registry of Shipping, and Bureau Veritas International Register of Shipping,—should be deemed to have been made by a Steamship Inspector, under certain conditions as set out in the said Order in Council;

Canada Shipping Act—continued

AND WHEREAS the Minister of Transport reports that the Chairman of the Board of Steamship Inspection has recommended that the name of the American Bureau of Shipping be added to the list of classification societies whose survey or inspection is accepted under the provisions of subsection (3) of section 390 of the Canada Shipping Act, 1934; and

That as the said Order in Council, P.C. 592, was made under the provisions of the Canada Shipping Act in force in 1924, and as it is now desired to add another name to the list of classification societies whose surveys or inspections are accepted under the provisions of the above mentioned subsection (3) of section 390 of the Canada Shipping Act, 1934, it would appear desirable that a new Order in Council should be made and that the said Order in Council, P.C. 592, should be revoked.

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, is pleased to revoke and doth hereby revoke Order in Council P.C. 592, dated April 12, 1924.

His Excellency in Council, on the same recommendation, is further pleased to order and doth hereby order and direct that survey or inspection of non-passenger steamships by an exclusive surveyor to one of the following classification societies, namely,—Lloyd's Register of Shipping, British Corporation Register of Shipping and Aircraft, Bureau Veritas International Register for the Classification of Shipping, or the American Bureau of Shipping,—if made in accordance with the provisions of subsection (3) of section 390 of the Canada Shipping Act, 1934, above quoted, and any regulations made thereunder, shall be deemed to have been made by a Steamship Inspector.

N. A. ROBERTSON,
Clerk of the Privy Council.

20. Scale of fees for the inspection of steamships

P.C. 662

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 3rd day of February, 1944.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Transport reports,—

1. That a scale of fees for the inspection of steamships subject to inspection under the provisions of the Canada Shipping Act in force at that time, was fixed by Order in Council, P.C. 1236 of May 31, 1920, the minimum fee for steamships under 50 tons, gross tonnage, being set at \$20 for passenger, and \$15 for non-passenger steamships;

2. That the said scale of fees was amended by Order in Council, P.C. 1970 of November 10, 1925, to provide for a modified fee for inspection of passenger ferries under 50 tons, gross tonnage, not propelled by steam power, mainly employed in the carriage of vehicles and having their decks arranged accordingly, the fee being set at \$5;

Canada Shipping Act—continued

3. That a scale of fees for the inspection of barges, boats, bateaus, scows or other vessels which are towed and carry passengers, was fixed by Order in Council, P.C. 1948, of November 10, 1925, the fee being set at \$5 for vessels under 50 tons, gross tonnage, and \$10 for vessels of 50 tons, gross tonnage, and upwards;

4. That it is considered desirable that there should be a graduated scale of fees to apply to steamships under 50 tons, gross tonnage, other than the vessels referred to in Order in Council, P.C. 1970 of November 10, 1925;

5. That Order in Council P.C. 2711 of November 6, 1920, provides that the fees set out in Order in Council, P.C. 1236 of May 31, 1920, above mentioned, shall apply to similar steamships registered elsewhere than in Canada;

6. That Order in Council P.C. 315 of March 1, 1928, allows of the partial payment of fees chargeable under the provisions of Order in Council, P.C. 1236 of May 31, 1920, for the issue of a certificate of inspection;

7. That paragraph (a) of subsection (1) of section 477 of the Canada Shipping Act, 1934, provides that the Governor in Council may, from time to time, fix a fee to be paid yearly by the owner of every ship registered in Canada which is required to have a certificate of inspection, or a load line certificate, under the provisions of Part VII of the said Act;

8. That section 473 of the said Act which requires that dredges, rock drills, floating elevators, floating pile drivers, or like ships or vessels, which are not self-propelling and have a boiler fitted for power purposes, shall have the boiler inspected in like manner and under the same conditions as the boiler in a steamship, and shall carry life saving equipment in accordance with statutory regulations, provides that such vessels shall be subject to the provisions of Part VII in respect of the payment of fees;

9. That it is deemed expedient to fix the fees for the inspection of steamships registered in Canada, for barges, scows or like vessels used to carry passengers and towed by a steamship or operated on a cable and not moved by sails or oars, for certain ferries, and for dredges and other vessels required to have a certificate of inspection under the provisions of section 473 of the Act, in accordance with the scale of fees hereinafter mentioned;

10. That it is considered desirable that the provisions of Orders in Council P.C. 2711 of November 6, 1920, and P.C. 315 of March 1, 1928, above mentioned, should be included in this Order fixing the scale of fees.

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, and under the authority of paragraph (a) of subsection (1) of section 477 of the Canada Shipping Act, 1934, is pleased to fix and doth hereby fix the following scale of fees to be paid on and after April 1, 1944, for the inspection of ships registered in Canada.

His Excellency in Council, on the same recommendation and pursuant to the provisions of subsection (1) of section 488 of the said Act, is

Canada Shipping Act—continued

further pleased to direct and doth hereby direct that the said scale of fees shall be applied on and after April 1, 1944, to ships registered elsewhere than in Canada.

SCALE OF FEES

1. Steamships

Gross tonnage	Passenger		Non-passenger	
	\$	cts.	\$	cts.
Under 10 tons.....		5 00		5 00
10 tons and under 25 tons.....		10 00		5 00
25 tons and under 40 tons.....		15 00		10 00
40 tons and under 50 tons.....		20 00		15 00
50 tons and under 100 tons.....		30 00		25 00
100 tons and under 150 tons.....		35 00		30 00
150 tons and under 200 tons.....		40 00		35 00
200 tons and under 300 tons.....		50 00		45 00
300 tons and under 500 tons.....		65 00		55 00
500 tons and under 700 tons.....		90 00		75 00
700 tons and under 1,000 tons.....		130 00		110 00
1,000 tons and under 3,000 tons.....		160 00		135 00
3,000 tons and under 4,000 tons.....		210 00		185 00
4,000 tons and under 5,000 tons.....		260 00		235 00
5,000 tons and under 6,000 tons.....		310 00		285 00
6,000 tons and under 7,000 tons.....		360 00		335 00
7,000 tons and under 8,000 tons.....		410 00		385 00
8,000 tons and under 9,000 tons.....		460 00		435 00
9,000 tons and under 10,000 tons.....		510 00		485 00
10,000 tons and over.....		560 00		535 00
	(Plus \$10.00 for each additional 1,000 tons over 10,000 tons.)			

2. Passenger-carrying barges or scows

For barges, scows or like vessels carrying passengers and towed by a steamship or operated on a cable and not moved by sails or oars, the fees shall be as follows—

For vessels under 50 tons, gross tonnage.. . . \$ 5 00

For vessels of 50 tons, gross tonnage, and upwards. 10 00

3. Special fees for certain ferries

Notwithstanding the provisions of paragraph 1, the fee for self-propelled passenger ferries under 50 tons, gross tonnage, propelled by means of gas or oil engines, which are mainly employed in the carriage of vehicles and have their decks arranged accordingly, shall be \$5.

4. For dredges, rock drills, floating elevators, floating pile drivers, or like ships or vessels, which are not self-propelled, but which, under section 473 of the Act, are required to have a certificate of inspection, the fee shall be as set out in paragraph 1 above, provided that in a case where the tonnage of a vessel would require an inspection fee out of proportion to the amount of inspection work involved, the fee shall be at the discretion of the Chairman of the Board of Steamship Inspection.

His Excellency in Council is further pleased to order and doth hereby order that in a case where a ship is inspected at any time within a period of twelve months from the payment of the annual fee required, a twelve months certificate may be issued if the owner pays a fee reckoned at the rate of one-twelfth of the annual fee for each month of thirty days which has elapsed since the last such fee was paid; and

Canada Shipping Act—continued

That fees, in the case of ships inspected in Canada, shall be paid to a Collector of Customs, or, in the case of ships inspected outside of Canada, to the Steamship Inspector who makes the inspection.

His Excellency in Council is also pleased to revoke Orders in Council P.C. 1236 of May 31, 1920, P.C. 1970 of November 10, 1925, P.C. 1948 of November 10, 1925, P.C. 2711 of November 6, 1920, and P.C. 315 of March 1, 1928, and they are hereby revoked effective April 1, 1944.

N. A. ROBERTSON,
Clerk of the Privy Council.

21. Carriage of dangerous goods and explosives in ships

P.C. 3632

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 22nd day of May, 1945.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS subsection (1) of section 456 of the Canada Shipping Act, 1934, reads as follows:—

“456. (1) The Governor in Council may, by regulation, declare that any goods, articles or materials to be carried in a ship are dangerous goods, and may prescribe—

- (i) the method of packing and stowing such goods;
- (ii) the quantity of such goods which may be carried in any ship;
- (iii) the place or places within a ship in which they may be carried;
- (iv) the marking which is to be placed on any package or container in which goods may be placed for shipment”;

AND WHEREAS the Minister of Transport reports that dangerous goods are now being carried in ships registered in Canada, and in ships not registered in Canada while in Canadian ports, in accordance with the British Rules for the Carriage of Dangerous Goods and Explosives in Ships contained in the Appendix to the Report dated March 2, 1933, of the Departmental Committee appointed by the Board of Trade to consider the existing Board of Trade Memorandum on the Carriage of Dangerous Goods and Explosives in Ships, as amended by Circular 1768 (May, 1944) issued by the Ministry of War Transport, amended by Memoranda No. 4649 of August 22, 1944, No. 4705 of October 26, 1944, No. 4175 of November 8, 1944, and No. 4742 of November 28, 1944; and

That it is deemed expedient that regulations be made for the purpose of adopting the practice now prevailing with respect to the carriage of dangerous goods in ships;

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, and under the above cited authority is pleased to make and doth hereby make the following regulation:—

“The goods, articles or materials classed as dangerous goods in the Appendix to the Report of the Departmental Committee appointed by

Canada Shipping Act—*continued*

the Board of Trade to consider the existing Board of Trade Memorandum on the Carriage of Dangerous Goods and Explosives in Ships (copy annexed hereto marked "A"), as amended by Circular 1768 (May, 1944) of the Ministry of War Transport (copy annexed hereto marked "B", as amended by Memoranda, No. 4649 of August 22, 1944, No. 4705 of October 26, 1944, No. 4715 of November 8, 1944, and No. 4742 of November 28, 1944, issued by the Ministry of War Transport, copies annexed hereto marked "C"), including the relevant paragraphs of the Instructions of the Ministry of War Transport entitled 'Conveyance of Government Explosives in Freight Ships during the present Emergency' (T. 152, 1943 edition), as amended by supplements, Nos. 1 and 2, (copies annexed hereto marked "D") referred to in the said Circular 1768, as replacing certain of the said Rules, are hereby declared to be dangerous goods within the meaning and for the purpose of Section 456 of the Canada Shipping Act, 1934, and the provisions of the Rules contained in the said Appendix to the Report, amended as aforesaid, and with the words 'Minister of Transport' substituted for the word 'Administration' wherever appearing in the said Rules, shall apply, *mutatis mutandis*, to the method of packing and stowing such goods, the quantity of such goods which may be carried in any ship, and the place or places within a ship in which they may be carried, provided that the provisions of the said Rules, as amended, with respect to passenger ships carrying more than twenty-five passengers shall apply to passenger ships carrying more than twelve passengers."

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued

APPENDIX

“A”

RULES FOR THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS

PART I

Preamble

1. The rules contained in this Part I are the general rules which must be observed when dangerous goods are carried on board ship. The particular rules applicable to each individual substance will be found in the appropriate sections in Part II.

2. From the standpoint of seaworthiness all goods should be regarded as dangerous the carriage of which may, by reason of their properties, involve special risk to the safety of the ship or of the persons on board.

3. The substances are classified according to their main characteristics and properties in Part II. Substances possessing properties on account of which they may be included in more than one category have been placed in those categories appropriate to their more dangerous properties, but the rules for their packing and stowage have been framed with due regard to the whole of their properties.

4. The substances classified in Part II are not to be considered as forming a full list of dangerous goods and the non-inclusion of any substance possessing dangerous properties is not to be held to relieve the persons concerned from responsibility for proper packing and stowage.

5. The methods of packing and stowage laid down in Part II are not necessarily the only ones which may be permitted. Any other methods which will ensure equivalent protection may be approved by the Administration.

6. When it is desired to carry any other substances which are thought to possess dangerous properties or to use other equally safe methods of packing and stowage, the case should be submitted for the consideration of the Administration.

7. In formulating the precautions to be taken consideration has been given to the nature of the substances both in themselves and in their relationship to other substances with which each of them may be stowed, as well as to the influences (e.g., rough usage, or high temperature in a hold or on deck in the tropics), to which they may be exposed.

Canada Shipping Act—continued*Definitions*

8. For the purpose of these rules the following expressions have the meanings noted against them:—

Hermetically sealed. A container may be regarded as hermetically sealed if it is so constructed and secured that it is in effect airtight and will maintain its airtightness under all usual sea conditions.

Under deck in general means in a hold, or in a covered space which is enclosed between bulkheads and is capable of being effectively closed against the weather. But a covered space falling within the above definition should not be used for the stowage of dangerous goods unless it is bounded by steel bulkheads, is efficiently ventilated, and is closed to traffic whilst at sea, or if its position does not permit of dangerous goods being stowed away from coal and sources of heat.

On deck in general means other than under deck as above defined; but where it is provided that substances are to be carried “on deck only” it means in an uncovered space.

NOTE.—Where by the rules contained in Part II substances may be stowed either on or under deck it is not to be inferred that both stowage on deck and stowage under deck are necessarily suitable for the substances. The stowage has been prescribed solely from the point of view of the safety of the ship.

Passenger ship. A passenger ship is any ship in which the number of passengers exceeds 25 or one-tenth of the number of feet in the ship’s registered length, whichever is the greater.

General Rules

9. *Marking of Packages.*—All packages of dangerous goods other than explosives (Section 1, Part II) and gas cylinders (Section 2, Part II) must be labelled conspicuously on the outside, according to the contents and the nature thereof as shown in the following classification, with labels conforming to those given on page 3454 at or before the time of being received on board. The labels must be secured to the packages by such means that, having regard to the usual conditions of transport, they are not likely to become detached in transit and thus leave the packages unmarked.

Substances dangerous by inter-action with air and water..Label A.

Substances giving off inflammable vapours.. . . .Label B.

(Where the flash point is 73°F. or above, the word
“HIGHLY” should be omitted.)

Corrosive substances.. . . .Label C.

Poisonous substances.. . . .Label D.

Readily combustible substances and miscellaneous .. .Label E.

10. Stencilling or other lettering on the outside of packages must be in red, except where the packages are coloured red all over when the

Canada Shipping Act—continued

stencilling may be of any suitable colour. (This does not apply to paint marks which may be used to denote the destination of a package.)

11. Packages of explosives and cylinders of gas must be marked as laid down in Sections 1 and 2 respectively of Part II.

- 12. Deck Stowage.**—(a) All goods stowed on deck must be properly secured, having regard both to the nature of the packages and the weather conditions likely to be experienced. Adequate security can be obtained by means of temporary structures made by using bulwarks, hatch coamings and bridge bulkhead, the structure being closed by means of portable bulb angles bolted to bulwarks and hatch stiffeners. The cargo so stowed should be further secured by means of overall lashings or nets. Unless so stowed or secured by some other equally satisfactory method bulky packages must be lashed individually, preferably with wire rope lashings.
- (b) The stowage must be such as to provide safe and satisfactory access to the crew's quarters and to all parts of the deck required to be used in the navigation and necessary work of the ship, and sufficient airing space for the crew clear of the goods concerned. Where dangerous goods are stowed in the wells they should not be stowed above the height of the bulwarks, and cargo which, by reason of its nature, is liable to damage tarpaulins or hatch covers should not be stowed on the hatchways.
- (c) Where deck cargo of an inflammable nature is carried special precautions must be taken to prevent smoking or the use of naked lights in the vicinity of the cargo, and notices must be displayed to that effect.
- (d) Where petroleum spirit and other liquids subject to the same conditions of carriage as petroleum spirit are carried as deck cargo on one side of a ship, means should be employed to prevent any leakage crossing to the side used for crew's access.
- (e) Substances liable to give off inflammable or poisonous vapours should be stowed away from intake ventilators.
- (f) In ships carrying passengers dangerous goods may not be stowed on any part of the decks available for passengers or near passenger accommodation.

13. Limitation of quantity.—The total amount of dangerous goods carried on deck may not occupy more than 50 per cent of the total open deck area. Within this limitation there is no restriction on the quantity of any individual substance except as provided in the table in Section 4, Part II.

14. Electric Cables.—In the case of combustibles care must be taken to avoid risk of ignition which may arise from electrical short circuit.

Canada Shipping Act—continued

LABELS

(See paragraph 9.)



The size of the labels to be not less than 5 inches by 5 inches and the word "Dangerous" to be in letters of not less than 1½ inches.

Canada Shipping Act—continued

PART II

RULES FOR PACKING, MARKING AND STOWAGE

SECTION 1—EXPLOSIVES

An explosive is here defined as a substance used or manufactured with a view to produce a practical effect by explosion, or a pyrotechnic effect, or any other substance which has been required by the Administration to be treated as an explosive. The term "explosive" includes fireworks, fuzes, fog signals, rockets, percussion caps, detonators, cartridges, ammunition of all descriptions, and every adaptation of an explosive as above defined.

In Great Britain explosives are classified by the law and are divided into the seven Classes given below. It is also provided that when an explosive falls within the description of more than one Class it shall be deemed to belong exclusively to the latest of the Classes within the description of which it falls.

NOTE.—All blasting and propellant explosives in bulk will be found to be included in the first four Classes.

Class 1.—Gunpowder

The term "gunpowder" means gunpowder ordinarily so called.

NOTE.—Gunpowder ordinarily so called means a mixture of charcoal, sulphur and nitrate of potassium or nitrate of sodium; and whether used for blasting or as a propellant.

Class 2.—Nitrate Mixture

The term "nitrate mixture" means any preparation other than gunpowder ordinarily so called formed by the mechanical mixture of an inorganic nitrate or a perchlorate with any form of carbon or with any carbonaceous substance not possessed of explosive properties, and whether such preparation be or be not mechanically mixed with any other explosive substance.

Every blasting explosive in this Class, in which nitrate of ammonium, nitrate of sodium, or chloride of sodium are used as ingredients, shall be contained in cartridge wrappers or cases (or in 5 lb. inner packages) made thoroughly waterproof with melted paraffin or other suitable waterproofing material.

NOTE.—This is a precaution against moisture when hygroscopic ingredients such as nitrate of ammonium or of sodium or chloride of sodium are used.

Class 3.—Nitro-Compound

The term "nitro-compound" means any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (whether mixed or not with sulphuric acid) or of a nitrate mixed with sulphuric acid upon any carbonaceous substance whether such compound is mechanically mixed with other substances or not.

Every blasting explosive in this Class in which nitrate of ammonium, nitrate of sodium, or chloride of sodium are used as ingredients shall be

Canada Shipping Act—continued

contained in cartridge wrappers or cases (or in 5 lb. inner packages) made thoroughly waterproof with melted paraffin or other suitable waterproofing material (see Note under Class 2 above).

NOTE.—The term “nitro-compound” is held to include organic nitrates and nitric esters such as nitro-glycerine and nitro-cotton.

The “nitro-compound” Class has two Divisions.

Division 1 comprises any chemical compound or mechanically mixed preparation the explosive constituent of which consists either wholly or partly of nitro-glycerine or of some other liquid “nitro-compound” of this type.

Every explosive in this Division shall be of such character and consistency as not to be liable to liquefaction or exudation.

NOTE.—This Division 1 of Class 3 includes all explosives containing nitro-glycerine, nitro-glycol, or nitro-poly-glycerine, whether used for blasting or as propellants. Such blasting explosives as blasting gelatine, dynamite, gelignite, are in this Class and such propellants as ballistite and cordite. Nitro-glycerine, nitro-glycol, and nitro-poly-glycerine in the liquid form may not be transported by sea. No other liquid nitro-compound of this type shall be transported by sea without the consent of the Administration.

Division 2 comprises any explosive nitro-compound or any explosive containing a nitro-compound which does not come within the first Division.

NOTE.—Division 2 includes guncotton, nitro-cellulose and explosives such as picric acid and tri-nitro-toluol, as well as explosives containing these or other nitro-compounds such as nitro-naphthalene. Most of the propellants used for sporting purposes are in this Division.

Collodion cotton, which is defined as nitro-cotton of which not less than 85 per cent is soluble in ether-alcohol and which contains not more than 12·3 per cent of nitrogen, is not regarded as an explosive when

- (a) in solution in alcohol and ether,
- (b) wet with water, or
- (c) saturated with methylated or similar spirit and contained in airtight cases.

Collodion cotton in solution in alcohol and ether or when saturated with methylated spirit or other damping agent will be found in Section 4.

Collodion cotton wet with water may be carried freely in any ship.

Picric acid containing not less than half its own weight of water is not regarded as an explosive, but rules for its conveyance by sea are necessary and will be found in Section 7.

Picric acid mixed with less than half its own weight of water may be conveyed as set out in paragraph 12 (g) of the Rules as to Stowage page 16, but when not exceeding 1 lb. in weight it may be shipped in accordance with the provision set out under “chemicals and medicinal preparations in limited quantities” in Section 7.

Di-nitro-phenol is, also, not regarded as an explosive when it is mixed with water in the proportion of 85 parts by weight of di-nitro-phenol to not less than 15 parts by weight of water. Rules for its conveyance by sea will be found in Section 7.

Di-nitro-phenol containing less than 15 per cent of water may be conveyed under the conditions for picric acid in paragraph 12 (g) of

Canada Shipping Act—continued

the Rules as to Stowage and, when not exceeding 5 lb. in weight, as set out for picric acid under "chemicals and medicinal preparations in limited quantities" in Section 7.

Class 4.—Chlorate Mixture

The term "chlorate mixture" means any explosive containing a chlorate but does not include perchlorates, which are in Class 2.

Every blasting explosive in this Class in which nitrate of ammonium, nitrate of sodium or chloride of sodium are used as ingredients shall be contained in cartridge wrappers or cases (or in 5 lb. inner packages) made thoroughly waterproof with melted paraffin or other suitable waterproofing material (see note under Class 2).

The Chlorate Mixture Class has two Divisions.

Division 1 comprises any chlorate preparation which consists partly of nitro-glycerine or of some other liquid nitro-compound of this type.

Provided that every explosive in this Division shall be of such character and consistency as not to be liable to liquefaction or exudation.

NOTE.—There are no explosives in this division at present.

Division 2 comprises any chlorate mixture as before defined which is not comprised in the first Division.

NOTE.—Explosives in this Division may or may not contain nitro-compounds such as tri-nitro-toluol, di-nitro-toluol, etc.

Class 5.—Fulminate

The term "fulminate" means any chemical compound or mechanical mixture, whether included in the foregoing Classes or not, which, from its great susceptibility to detonation, is suitable for employment in percussion caps or any other appliances for developing detonation, or which, from its extreme sensibility to explosion and from its great instability (that is to say, readiness to undergo decomposition from very slight exciting causes) is especially dangerous.

This Class consists of two Divisions.

Division 1 comprises such compounds as the fulminates of silver and of mercury and preparations of these substances, such as are used in percussion caps; and any preparation consisting of a mixture of a chlorate with phosphorus, or certain descriptions of phosphorus compounds, with or without the addition of carbonaceous matter, and any preparation consisting of a mixture of a chlorate with sulphur or with a sulphide, with or without carbonaceous matter.

NOTE.—The only explosive in this Division at present is fulminate of mercury. Fulminate of mercury may only be transported when in water (see Rules for Packing on page 14).

Division 2 comprises the following explosives and such substances as the chloride and the iodide of nitrogen, fulminating gold and silver, diazobenzol, and the nitrate of diazobenzol.

NOTE.—The explosives in this Division at present are lead azide, lead tri-nitro resorcinate, pentaerythritol-tetranitrate, tetrazene (guanylnitrosoamino-guanyl tetrazene).

Transport by sea of explosives in this Division is prohibited.

Canada Shipping Act—continued*Class 6.—Ammunition*

The term “ammunition” means an explosive of any of the foregoing Classes when enclosed in any case or contrivance, or otherwise adapted or prepared so as to form a cartridge or charge for small arms, cannon, or any other weapon, or for blasting, or to form any safety or other fuze for blasting, or for shells, or to form any tube for firing explosives, or to form a percussion cap, a detonator, a fog signal, a shell, a torpedo, a war rocket, or other contrivance other than a firework.

The term “percussion cap” does not include a detonator.†

The term “detonator” means a capsule or case which is of such strength and construction and contains an explosive of the fulminate-explosive class in such quantity that the explosion of one capsule or case will communicate the explosion to other capsules or cases.

The term “safety fuze” means a fuze for blasting which burns and does not explode, and which does not contain its own means of ignition, and which is of such strength and construction and contains an explosive in such quantity that the burning of such fuze will not communicate laterally with other like fuzes.

The “ammunition” Class has three Divisions.

Division 1.—(Safety Division)

NOTE.—This Division is known as the Safety Division and included in it are explosives of which the explosion of one will not communicate to others, as for instance, percussion caps, safety cartridges and safety fuzes.

Practically all rifle and shot gun cartridges come within this Division as “safety cartridges.”

Division 2 comprises any ammunition as before defined which does not contain its own means of ignition and is not included in Division 1.

NOTE.—Bulk explosives of Classes 1 to 4 when made up into cartridges for cannon, shells, mines, blasting or other like purposes are included in this Division as also are filled mines or filled shells themselves, and filled grenades or bombs.

Division 3 comprises any ammunition as before defined which contains its own means of ignition and is not included in Division 1.

NOTE.—The most important explosives in this Division are detonators and electric detonators. Filled grenades, shells and bombs fitted with fuzes come in this Division, as also the fuzes for shells and other firing or percussion igniting devices.

Class 7.—Firework

The term “firework” comprises firework composition and manufactured fireworks.

Division 1.—Firework composition.

NOTE.—Bulk firework composition may not be transported by sea.

Division 2.—Manufactured Fireworks.

†Percussion caps can only be properly classed as such if they are not liable to explode en masse. They should, therefore, not contain anvils or have their composition unprotected by tin foil or other suitable substance; and, in general, should not contain more than about 0.6 grain of a composition of the 1st Division of the 5th (Fulminate) Class of which not more than 25 per cent consists of fulminate of mercury, or less than 0.5 grain of any other explosive of the 1st Division of the 5th (Fulminate) Class.

Canada Shipping Act—continued

The term "Manufactured Fireworks" means any explosive of the foregoing Classes, and any firework composition, when such explosive or composition is enclosed in any case or contrivance, or is otherwise manufactured so as to form a squib, cracker, serpent, rocket (other than a war rocket), maroon, lance, wheel, Chinese fire, Roman candle, or other article specially adapted for the production of pyrotechnic effects or pyrotechnic signals, or sound signals. Provided that a substantially constructed and hermetically closed metal case containing not more than 1 lb. of coloured fire composition of such a nature as not to be liable to spontaneous ignition shall be deemed to be a manufactured firework.

NOTE.—In addition, in this Division there are certain named fireworks which it is necessary to define because either the composition is not contained in a case or because the firework is of a specially dangerous character. Examples are Aluminium Torches, Electric Sparklers, Amores having no case and Socket Signals which contain a charge of high explosive and detonator.

RULES AS TO PACKING AND MARKING FOR CONVEYANCE

NOTE.—In Great Britain the Rules for the packing of explosives for conveyance and the marking of the packages are statutory. The following definitions and regulations for the packing of explosives for conveyance and the marking of the packages are those made under the statute.

1. *Definitions.*—The expression "Outer package" means a box, barrel, case, or cylinder of wood, metal, or other solid material, of such strength, construction, and character that it will not be broken or accidentally opened, nor become defective or insecure whilst being conveyed, and will not allow any explosive to escape.

The expression "Inner package" means a substantial case, bag, canister, or other receptacle, made and closed so as to prevent any explosive from escaping.

The expression "Authorized Explosive" means exclusively an explosive defined in a List of Authorized Explosives in force for the time being.

The expression "Propellant" means an authorized explosive of Class III adapted and intended exclusively for use as a propelling charge in cannon or small arms.

The expression "Special Authority" means a written authority granted by the Administration to which may be attached such conditions as may be necessary to meet the special requirements of the case.

2. *Package to be clean.*—The interior of every package shall be free from grit and otherwise clean.

3. *No uncovered iron or steel.*—Save as hereinafter provided there shall not be any iron or steel in the construction of any package unless the same is covered with suitable material so as effectually to prevent the exposure of such iron or steel.

4. *Exclusive use of package.*—Every package when actually used for the packing of one explosive shall not be used for the packing of any other explosive or of any other article or substance.

Provided that this rule shall not prohibit the packing of inner packages containing a propellant in an outer package with inner packages containing gunpowder or another propellant.

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Provided also that this rule shall not prohibit the packing of any article which is not of an inflammable or explosive nature, or liable to cause fire or explosion, in the same package as explosive of the First Division of the Sixth (Ammunition) Class.

5. Method of packing.—Subject to the foregoing provisions, the following shall be the method of packing Explosives of the various Classes respectively and the maximum amounts which may be in any one package:—

Class	Method of Packing	Amount in any one Outer Package	Amount in any one Inner Package
Class I.....	When the quantity in any one consignment does not exceed 5 lb. in amount, a single outer package; otherwise a double package, the inner and outer packages being as above defined.	100 lb.	100 lb.
Class II.....	As for Class I.....	50 lb.	50 lb.
Class III.....	As for Class I, provided that either the outer or inner package shall be thoroughly waterproof, and that no metal shall be used in the construction of the packages except that (1) nails of brass, zinc, or other soft metal or coated with the same may be used for securing the outer package, and (2) wire stitching may be used for securing the inner package if the wire is effectively prevented from coming into contact with the explosive by means of a sheet of stout cardboard or otherwise.	50 lb.	5 lb.
Division 1, other than propellants.			
CLASS III—			
Division 1— <i>Continued</i>			
Cordite or other propellant adopted by the Administration.	As for Class I, except that for the inner package there may be substituted such arrangement or contrivance as may in the opinion of the Administration secure adequate safety.	120 lb.	120 lb.
Other propellants of Division 1.	As for Class I.....	50 lb.	50 lb.
Class III—			
Division 2, other than Picric Acid and Wet Guncotton.	As for Class I.....	50 lb.	50 lb.
Picric Acid.....	As for Class I.....	Unlimited	Unlimited
Guncotton so wetted with water as to be absolutely unflammable.	As for Class I, provided that the inner or outer package, or both of them, shall be of such a nature, and so closed, as to prevent any material loss of moisture during conveyance.	Unlimited	Unlimited
Class IV—			
Division 1.....	As for Class III, Division 1 other than propellants.....	50 lb.	5 lb.
Class IV—			
Division 2.....	As for Class I.....	50 lb.	50 lb.
Class V.....	Packed in water. A treble package, the innermost package being a bag permeable to water enclosed in a case containing sufficient water to insure the explosive being kept constantly wet; and the outer package containing sufficient water constantly to surround the case. Both the Case and the outer package shall be of such construction as will not allow water to escape. If the explosive is of such character that it cannot be packed in a thoroughly wet condition it shall be packed in accordance with conditions set forth in a Special Authority.	200 lb.	25 lb.
Class VI.....			
Division 1, other than Pin Fire Cartridges for pistols.	A single outer package, provided that the above Rule No. 3 shall not apply to explosives of this Division. Provided also that bullet cartridges of a calibre exceeding 0.5 inch and belonging to this Division shall be packed in such a manner that the point of any bullet cannot come in contact with the cap of another cartridge.	Unlimited	.....
Pin Fire Cartridges for pistols.	(a) Not exceeding 50 in number in any one consignment—So packed in a single package that the bases lie alternately in opposite directions. The bases and pins shall be so fitted into perforations in millboard or other suitable material as to prevent the firing of any one of the said cartridges by an explosion in any other of the said cartridges. (b) Exceeding 50 in number—In an inner and outer package, the cartridges being packed in inner packages, with millboard as above required.	50 in number	.....
Class VI.....			
Division 2.....	Explosives made up into cartridges or charges for cannon, shells, torpedoes, mines, blasting or other like purposes, shall be packed in such manner and in such quantity as is required for the same explosives when not so made up; provided that where a double package is required, the enclosing case of such cartridges or charges may, if it satisfy the conditions required for an inner package, be held to be such inner package. Other ammunition of this Division: A single outer package....	2,500 in number	50 in number
		100 lb.

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Class	Method of Packing	Amount in any one Outer Package	Amount in any one Inner Package
Class VI— Division 3, other than Detonators and Electric Detonators.	As for Class I.	50 lb.	2 lb. or 10 in number whichever be the greater.
Detonators.....	(a) Not exceeding 1,000 in any one consignment:—As for Class I, provided that the detonators and the spaces between the same, and between the sides of the inner package and the said detonators, shall be all filled as far as practicable, with fine sawdust or other similar material; a layer of felt or other soft yielding material shall be placed between both ends of all the detonators and the interior of the inner package in which the same are placed, in such manner and so secured, that both ends of the detonators will rest upon the said felt or other material; every inner package, if of metal, to be lined throughout with paper or other soft material; (b) Exceeding 1,000 detonators:—The detonators shall be packed in inner packages, with sawdust and felt as above described. Such inner packages shall be placed inside a substantial case of wood or metal, made and closed so as to prevent any of the inner packages escaping therefrom, and such case shall be placed inside an outer package in such manner and so secured as to leave a clear space of not less than three inches between the case and every part of the interior of the said outer package, notwithstanding that such clear space may, if preferred, be filled with sawdust, straw, or other similar material or may contain a light framework or battens of wood to keep the case aforesaid in position in the outer package;	1,000 in number	100 in number
Electric Detonators.....	(c) Where the number of detonators exceeds 5,000 such outer packages shall be provided with handles or other contrivance, by means of which it can be safely and conveniently carried. As for Class I, provided that where the number in any outer package exceeds 3,000 such outer package shall be provided with handles or other contrivance, by means of which it can be safely and conveniently carried.	5,000 in number	100 in number
Class VII— Division 1.....	Not permitted by sea.....		
Class VII— Division 2.....	Single outer package, provided that the above Rule No. 3 shall not apply to explosives of this Division.	100 lb.	

6. *Additional package.*—Nothing in these regulations shall be deemed to prohibit the use of an additional package whether inner or outer, provided that such additional package shall not be of such character as shall have been prohibited in writing by the Administration.

7. *Marking.*—On the outermost package there shall be affixed in conspicuous characters by means of a brand or securely attached label or other mark the word “Explosive,” the name of the explosive, the number of the Class and Division to which it belongs, and the name of the manufacturer or sender.

In the case of explosives of Classes III and IV, there shall be added the date of manufacture or issue from the factory, or such sign indicating such date as may be approved by the Administration.

Provided that in the case of cartridges or charges for cannon, shells, mines, blasting or other like purpose which do not contain their own means of ignition, the marking shall be as for the explosive when not so made up.

Provided also that in the case of explosives of Class VI, Division 1 (Safety Fuze excepted) there shall be added the words “Not liable to explode in bulk.”

Provided also that in the case of Pin Fire Cartridges for pistols there shall be added the words “Pin Fire Cartridges”.

Provided also that in the case of Safety Fuze or Gunpowder the word “Explosive” and the number of the Class and Division may be omitted.

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Provided also that where an outer package contains more than one explosive, the marking above required shall be affixed separately in respect of each explosive so contained.

8. Special Authorities.—To meet special cases exemption may be granted by Special Authority from the observance of any one or more of the conditions imposed by these Rules.

RULES AS TO STOWAGE ON BOARD SHIP

The following rules do not apply to:—

- (a) Ship's ammunition, which must be carried in a separate part of the ship, the different varieties being stowed in separate cases according to their character.
 - (b) Government explosives, so far as these are shipped under special regulations drawn up by the Government Authority concerned.
1. Explosives except for the "Safety" explosives (Class 6, Division 1—see page 12) may not be carried in passenger ships as defined in Part I.
 2. The explosives shall be packed and the packages marked in accordance with the requirements given on pages 13 to 15.
 3. The stowage of the various kinds of explosives in holds of the vessel shall be in accordance with the requirements laid down in the following Rules as to Stowage.
 4. All explosives, except where otherwise provided in these Rules, shall be carried in magazines constructed in accordance with the specification for magazines—see Rule 15, page 16.
 5. A *Hold* shall be deemed to be a space contained between two permanent bulkheads.
 6. *Holds containing Coal.*—Unless specially authorized by the Administration no explosives may be carried in a hold containing coal, nor may any explosives other than those of Class 6, Division 1, be carried in a 'tween deck over a hold containing coal.
 7. The Administration may grant permission for explosives to be stored in such parts of a 'tween deck as are not immediately over a hold containing coal, provided they are satisfied on consideration of the nature and quantity of the explosives, the quantity and character of the coal, and any special circumstances of the case, that no danger is likely to arise.
 8. *Passengers' Baggage.*—No explosives shall be carried in a hold containing passengers' baggage.
 9. *Lightning Conductors.*—Lightning conductors must be fitted on all wooden ships carrying explosives, and also on iron or steel ships having wooden topmasts unless fitted with wire rigging from the mast heads making direct contact with the hull.
 10. *Electric Light Wires* must be disconnected in holds containing explosives. This does not apply to power cables for electrically driven winches provided that the power cables are of suitable design and construction and are effectively protected against risk of damage from cargo.
 11. Only explosives which have been authorized by the Administration may be carried on board ship.†

†*Note.*—In Great Britain a list of "Authorized Explosives" is published annually on the 1st January.

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12. Stowage.

- (a) The following explosives may be stowed in the same hold with one another in one magazine:—

Classes 1 to 4 inclusive	} As classified above.
Class 6, Divisions 1 and 2 and such explosives of Division	
3 as are here specified	

Filled gaines.

Friction and percussion tubes for firing explosives.

All fuzes and shells with or without gaines.

Fuzed shell other than smoke, incendiary or chemical.

Night tracers.

Percussion primers.

Portfires.

Quick-firing ammunition.

- (b) Detonators, Electric detonators, and Igniters with detonators attached, must be stowed in a magazine by themselves in a separate hold in which no other explosives are placed except those of Class 6, Division 1.

The magazines containing these must not be less than four feet from the ship's side.

- (c) Fire works except as provided in (c) (ii) and (c) (iii) must be stowed in a separate hold by themselves in which no other explosives are placed except those of Class 6, Division 1. Iron tanks may be substituted for portable magazines (see Rule 17, page 17). These tanks may also be carried on deck, away from inflammable and corrosive substances.

(ii) Small fireworks may be stowed in a suitable lock-up, access to which can be restricted to authorized persons.

(iii) The following fireworks may be stowed under the conditions indicated against them:—

Aluminium Torches	} Same conditions as unapproved brands of Safety matches (see Section 7, page 55).
Electric Sparklers	
Magnesium Torches	

Confetti Bombs under various names.	} Same conditions as approved brands of Safety matches (see Section 7, page 54).
Joke Bombs under various names.	

Snap for Christmas bon-bon crackers. Same conditions as unapproved brands of Safety matches (see Section 7, page 55).

- (d) Smoke, Incendiary and Chemical shells, bombs and grenades should, if practicable, be stowed on deck as far aft as possible, but if this cannot be done they should be stowed in the Shelter Deck provided no food-stuffs are stowed there; preference for deck stowage being given to Smoke shells.

- (e) No magazine need be provided for the stowage of explosives of Class 6, Division 1, and the following explosives, viz:—

Bombs and grenades in boxes with their igniters, but not assembled except smoke, incendiary or chemical.

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Depth Charges.

Electrical Fuzes.

Electrical and Shrapnel Primers.

Filled Gaines.

Filled Shell, plugged or fuzed with fuzes including positive safety arrangements which prevent their action until fired from a gun.

Fuzes for Shell.

Hand Grenades packed with Igniters but not assembled.

Mines and Counter Mines not containing their own means of ignition.

Portfires.

Quick Match.

Slow Match.

Sweeping Charges.

Tubes for firing explosives.

Warheads for torpedoes.

Wet Guncotton.

These articles may be stowed in the same hold as the explosives specified in Rule 12 (a), page 15, or with "Special Ammunition Stowage," which means in a compartment in which there are no matches, inflammable liquids, or other dangerous goods.

- (f) Filled shells unboxed shall be securely chocked off, and when not overstowed by suitable cargo shall be covered by deals securely tommed down from the deck above.
- (g) Picric acid, when containing less than half its own weight of water, and dinitro-phenol, when containing less than 15 parts by weight of water, may be carried, in ships other than passenger ships as defined in Part I, without a magazine, provided that the following conditions are complied with:—
 - (i) It must be packed in accordance with the instructions on page 14.
 - (ii) It must be stowed in a cool place away from boilers, strong mineral acids, paints and inflammable liquids, and not in contact with any of the following, viz.:—lead, or metallic oxides (such as oxides of copper, iron, lead or zinc), baryta, lime, potash, soda, and any compound of such metal or oxide (other than a metallic sulphate) or any chlorate, nitrate, or other oxidizing agent.
 - (iii) It must not be stowed in the same hold with detonators or fireworks.
 - (iv) Each package must be marked as follows:—
 "Explosive Class 3, Division 2.
 Picric Acid (or Di-nitro-phenol).
 To be stowed away from boilers, strong mineral acids, paints, etc., and not in contact with lead, metallic oxides (including caustic soda and caustic potash) or any chlorate, nitrate or other oxidizing agent."
 - (v) The quantity in any one compartment must not exceed 10 tons.

13. Certain substances in Sections 2, 3, 4 and 5, must not be carried in any ship in which explosives are carried unless the engine and boiler room spaces intervene between the holds containing the explosives and the spaces in or over which the substances are stowed.

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14. No other goods may be stowed in a magazine with explosives.

15. *Specification for magazines.*

(a) Unless otherwise sanctioned by the Administration magazines are to be built in 'tween decks if possible. They must be so placed that their doors are easily accessible from a hatchway. Magazines must not be constructed underneath or in proximity to living quarters.

NOTE.—The term "tween decks" means all closed-in spaces below the uppermost continuous deck which are bounded by permanent bulkheads, and through which there can be no traffic whilst at sea, and which are included in the gross tonnage of the ship. Magazines may, if sanctioned, be built in a poop when it is included in the gross tonnage of the ship, and when not so included in the gross tonnage provided the openings are efficiently closed and such poop contains no kind of crew accommodation or stores. Magazines should not be built in any bridge house whether included in the tonnage or not. This does not apply to the stowage of Smoke, Incendiary and Chemical Shells in the shelter deck.

(b) Magazines may be constructed of steel, iron or wood, provided that, if of steel or iron, the whole of the interior shall be thoroughly protected by paint, varnish, galvanizing or other suitable coating. Provided that no gunpowder, picric acid or other bulk explosives packed in barrels shall be stowed in a steel or iron magazine unless the inside of the magazine, including all ironwork, is covered with wood or other suitable material.

(c) Flooring of all magazines shall consist of 3 inches by 1 inch gratings with a mesh of not more than 4 inches square. These gratings shall be portable, to allow access for cleaning.

(d) When magazines are constructed of wood they shall comply with the following specifications, viz.:—

(i) The bulkheads to be formed of 1½ inch boards secured internally to uprights 3 inches square, placed not more than 2 feet apart, running from deck to deck, and firmly secured top and bottom. Where the magazine is against the ship's sides and cargo battens are fitted, spaced not more than 9 inches apart, other lining is unnecessary.

Where cargo battens are more than 9 inches apart filling pieces shall be provided.

When on iron decks, the heels of the uprights to step on and be secured to a board of 1 inch thick laid on the deck.

Boards 9 inches by 1½ inches to be securely fastened to the uprights at the upper and lower ends for securing heads of shores for tomming off.

(ii) Except when built on cargo or in the square of the hatchway, a magazine need not be roofed over, provided that in the case of explosives of Classes 3 and 4 a clear space of not less than 3 inches shall be left below the bottom of the beams of the over-deck.

(iii) The door of the magazine shall be of substantial construction and fitted with a strong lock.

(iv) When a magazine measures athwartships more than 40 feet, a fore and aft bulkhead must be fitted constructed of uprights

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3 inches square, 3 feet apart, extending from deck to deck, secured at the top and bottom as for side bulkheads, lined up with 1 inch boarding not more than 6 inches apart, alternately on either side of the uprights. The ship's permanent stanchions may be used in lieu of the temporary uprights when they are in the proper position, and provided they are not more than 6 feet apart. If gunpowder, picric acid or other bulk explosives packed in barrels are carried, the stanchions and any other metal work inside the magazine must be covered with wood or other suitable material.

- (v) Should the height of the proposed magazine exceed 8 feet the construction should be specially determined by the Administration.
- (e) Every magazine shall be efficiently ventilated, but any deck ventilator into, or immediately over, a magazine shall be covered by two thicknesses of fine wire gauze, or other efficient fireproof covering. Steel or iron magazines unprovided with ventilators shall be ventilated into the hold by the provision of two-inch holes in the bulkhead as close to the over-deck as practicable.

16. Magazines on cargo.—When it is necessary to build the magazine on cargo the elected place is to be levelled off, and the bottom formed of 3 inches by 3 inches quartering, placed 2 feet apart, covered with 1½ inch boarding, securely nailed. Uprights 3 inches square, 2 feet apart, running from the boards to the deck above, to fit tight and to be well driven in, cleated at the bottom and well tommed off at the top.

Remainder of magazine as previously detailed.

Should the height of the proposed magazine exceed 8 feet, the construction should be specially determined by the Administration.

17. Portable magazines for any quantities up to two tons measurement.—(Size in accordance with the dimensions of the packages to go into it.) A frame is to be made of 2 inches by 3 inches quartering floored and boarded up with 1½ inch boarding. Lid to be fitted with cleats on the inside to keep it in its place when shipped, and fastened with hasp, staples, and a strong hanging lock of brass or galvanized iron.

18. Supplementary provisions.—Magazines may be built in a Shelter Deck if sanctioned by the Administration provided that:—

- (a) they are separated by an efficient bulkhead from the spaces abreast of the engine and boiler casings,
- (b) they are easily accessible from the hatchway,
- (c) only suitable cargo is stowed adjacent to them,
- (d) the space contains no kind of crew accommodation or stores, and
- (e) they are not constructed under or adjacent to living quarters.

19. A cool position is to be selected for all magazines and for the places where explosives are to be stowed.

20. Magazines, when not supported by other cargo, shall be efficiently tommed off.

SECTION 2.—COMPRESSED “PERMANENT”, LIQUEFIED AND DISSOLVED GASES

This Section deals with gases under pressure and includes the so-called “permanent” gases given under “Compressed Gases” (Part I); the liquefied gases given under “Liquefied Gases” (Part II); and, under Dissolved

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Gases" (Part III), those gases which are dissolved under pressure in some liquid, such as acetylene dissolved in acetone and absorbed by porous material.

NOTE.—Acetylene may be absorbed under pressure by porous material without being dissolved in acetone but this is unusual.

Certain of the gases may be carried otherwise than in cylinders complying with the rules hereafter set out. Particulars of the methods which may be adopted are contained in part IV. For Hydrocyanic acid see also Section 6, page 44.

Properties of the Gases

While in all cases danger may arise from the fact that the containers are under pressure there may, in the event of leakage, be additional hazards due to the fact that certain of the gases are poisonous, while others are inflammable. A few are both poisonous and inflammable.

Each Part contains a list of the gases to which it applies together with a brief note of their main characteristics. The relative densities of the gases compared with air are given. Those heavier than air will tend to remain at the bottom of a compartment and to find lower levels, while those lighter than air will tend to rise.

SECTION 2—PART I—COMPRESSED "PERMANENT" GASES

Substance.	Properties.	Relative Density (Air=1).	Fire Risk.	Other Risks.
Air.....	No deleterious properties.....	1.00	None.....	None.
Argon.....	Non poisonous, but in excessive quantities will cause suffocation.	1.379	None.....	None.
Carbon monoxide..	Poisonous. Fatal in very small quantities if breathed for a considerable period.	0.967	Inflammable†.....	None.
Coal gas.....	Dangerous on account of its carbon monoxide content as above.	0.42 (approx.)	Inflammable†.....	None.
Helium.....	Non poisonous, but in excessive quantities will cause suffocation.	0.137	None.....	None.
Hydrogen.....	Non poisonous, but in excessive quantities will cause suffocation.	0.070	Inflammable†.....	None.
Methane.....	Non poisonous, but in excessive quantities will cause suffocation.	0.556	Inflammable†.....	None.
Neon.....	Non poisonous, but in excessive quantities will cause suffocation.	0.696	None.....	None.
Nitrogen.....	Non poisonous, but in excessive quantities will cause suffocation.	0.967	None.....	None.
Oxygen..... (See also Part IV)	Long continued respiration of undiluted oxygen is harmful.	1.105	May cause self ignition of rags, sawdust and other finely divided organic material, when present in excess. Strong supporter of combustion.	None.

†All inflammable gases will form explosive mixtures with air.

Regulations for Cylinders

1. The compressed "permanent" gases shall be carried in seamless steel cylinders made of steel to either of the specifications A or B contained in Schedule A (page 22) and shall comply with the tests described in that Schedule. Some existing cylinders may have been manufactured to the specifications given in Schedule B (page 26). Such cylinders, as well as those made to specifications A and B, may be carried on board ship provided that they comply with the following regulations 2 to 9.

2. The cylinders shall be maintained in good condition and the valves shall be securely closed to prevent leakage.

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3. The working or internal pressure in any cylinder shall not exceed 1,800 lb. to the square inch.

4. The valves of cylinders containing carbon monoxide, coal gas, hydrogen, methane, or other inflammable or poisonous gas shall be protected against damage either by the design of the cylinder or by the provision of a stout metal cap or metal cover securely attached to the body of the cylinder. The metal cap or cover shall be so made that it is nowhere in actual contact with any part of the valve or valve body. Every valve cap shall be provided with a vent of such size as to prevent any gas pressure inside the cap or cover. Small cylinders packed in stout cases which will adequately protect the valves need not be provided with caps or covers.

5. The valves of cylinders containing carbon monoxide, coal gas, hydrogen, methane, or other inflammable gas shall be provided with left-handed outlet screw threads for the pipe or other connection.

6. Oil or similar lubricant shall not be used on any valves or other fitting of any cylinders.

7. Each cylinder shall be submitted to the hydraulic test specified in Clause 3, Part II, of Schedule A (page 23) at intervals not greater than two years. Prior to any hydraulic test the cylinder shall be thoroughly cleaned and examined externally and, so far as practicable, internally for surface defects, corrosion and foreign matter. Where internal rust or foreign matter is observed the cylinder, prior to the hydraulic test, shall be heated to a temperature not exceeding 300° C. (572° F.) and again cleaned and examined. After each hydraulic test and before being taken into use the cylinder shall be thoroughly dried internally and shall be stamped with marks and figures indicating the person or firm and the date of test as specified in Clause 4, Part II of the Schedule (page 23).

8. Cylinders shall be legibly marked or labelled with the name of the gas and the name and address of the person or firm by whom it was compressed. Cases in which cylinders are packed shall be legibly marked or labelled as above in red except where cases are coloured red all over when the marking or labelling may be of any suitable colour.

9. To prevent movement, cylinders containing compressed "permanent" gas shall be covered with coir rope matting, or fitted with rope grumets or with squared metal shoes at each end, or stowed in wooden cradles. This does not apply to the cylinders packed in cases.

10. Cylinders containing compressed gas shall be stowed at least 8 feet from the ship's side under cover in cool, well-ventilated spaces away from inflammable cargo and living quarters and not over-stowed. They may not be stowed on deck unless they can be adequately secured and protected against the risk of damage in heavy weather and protected also from the direct rays of the sun. They may not be carried in or over holds containing coal except by permission of the Administration.

11. Cylinders containing carbon monoxide, coal gas, hydrogen or methane may not be carried in ships carrying explosives unless (a) if carried under deck, the engine and boiler room spaces intervene between the holds which contain the explosives and those which contain the cylinders, and (b) if carried on deck, the engine and boiler room spaces intervene between the holds containing the explosives and the spaces over which the cylinders are stowed.

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12. Cylinders containing carbon monoxide, coal gas or hydrogen may not be carried in passenger ships as defined in Part I (page 9).*

13. The above rules do not apply to special light alloy steel cylinders. Such cylinders, of capacity not greater than 20 cubic feet of free gas, may be required in particular cases where it is highly important to have very light small cylinders. They must always be packed in stout cases and their acceptance for conveyance will be subject to the permission of, and to conditions made by, the Administration.

SECTION 2—PART II—LIQUEFIED GASES

Substance.	Properties.	Relative Density (Air = 1).	Fire Risk.	Other Risks.
Ammonia (see also Part IV and Section 6).	Pungent and suffocating irritant.	0.571	Negligible.....	May cause corrosion of brass and copper fittings.
Carbon dioxide (see also Part IV).	In excessive quantities will cause suffocation.	1.529	None.....	None.
Chlorine.....	Very poisonous, pungent and choking.	2.462	May cause self ignition of acetylene, turpentine and finely divided organic material, e.g., sawdust.	Will corrode metals in the presence of moisture.
Ethylene.....	Anaesthetic.....	0.985	Inflammable, forms explosive mixtures with air.	None.
Ethyl chloride...	Anaesthetic.....	2.240	Inflammable. Burns in air, evolving fumes of hydrochloric acid.	None.
Hydrocyanic acid stabilized (see also Section 6).	Boiling point 26°C. (79°F.). Very poisonous.	0.95 calculated for H.C.N.	Inflammable.....	Hydrocyanic acid unstabilized is liable to polymerization with the development of pressure which might shatter the cylinder. The carriage by sea of unstabilized anhydrous hydrocyanic acid is prohibited. Shippers must furnish a certificate specifying the stabilizer and quantity used (for the confidential information of the Administration) and certifying that the substance has not been in the receptacles for longer than six months.
Methyl chloride.	Anaesthetic.....	1.753	As for Ethyl chloride...	None.
Nitrous oxide....	Anaesthetic.....	1.530	Strong supporter of combustion.	None.
Phosgene.....	Very poisonous.....	3.505	None.....	Corrodes metal in the presence of moisture.
Sulphur dioxide (see also Part IV).	Pungent and suffocating irritant.	2.264	None.....	Corrodes metal in the presence of moisture.

Regulations for Cylinders

1. The liquefied gases shall be carried in seamless steel cylinders of steel made to specification B contained in Schedule A (page 22) and shall comply with the tests described in that Schedule. Some existing cylinders may have been manufactured to the specification given in Schedule B (page 26). Such cylinders, as well as those made to specification B, may be carried on board ship provided that they comply with the following regulations 2 to 11.

2. The cylinders shall be maintained in good condition and the valves shall be securely closed to prevent leakage.

*In emigrant ships cylinders of the other "permanent" gases may be carried only by permission of the Emigration Officer.

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3. (a) Each cylinder shall be completely emptied and thoroughly dried on each occasion before being charged.

(b) Care should be taken that the gas is freed from moisture.

4. The maximum amount of gas which will be placed in any cylinder shall be the amount given in the following Table I, the "filling ratio" being the weight of gas (in pounds) permitted for each one pound of water capacity of the cylinder. The accuracy of each charge shall be determined by weighing.

TABLE I.—FILLING RATIOS AND ASSUMED WORKING (GAUGE) PRESSURE

Gas.	Temperate climates. (maximum temperature 45°C. [113°F.])		Tropical climates. (maximum temperature 65°C. [149°F.])	
	Filling ratio.	Working (gauge) pressure lb./sq. in.	Filling ratio.	Working (gauge) pressure lb./sq. in.
Sulphur dioxide.....	1.25	87	1.19	160
Ammonia.....	0.54	241	0.51	412
Chlorine.....	1.25	174	1.19	283
Methyl chloride.....	0.83	130	0.79	211
Ethyl chloride.....	0.82	29	0.79	60
Phosgene.....	1.25	53	1.19	95
Carbon dioxide.....	0.75	1,800	0.667	1,800
Hydrocyanic acid.....	0.60	12	0.57	32
Nitrous oxide.....	0.75	1,800	0.667	1,800
Ethylene.....	0.325	1,800	0.270	1,800

5. The valves of cylinders charged with liquefied gas shall be protected against damage either by the design of the cylinder or by the provision of a stout metal cap or metal cover securely attached to the body of the cylinder. The metal cap or cover shall be so made that it is nowhere in actual contact with any part of the valve or valve body. Every metal cap or cover, except in the case of cylinders for hydrocyanic acid, shall be provided with a vent of such size as to prevent gas pressure inside the cap or cover. Small cylinders packed in stout cases which will adequately protect the valves need not be provided with caps or covers.

6. The valves of cylinders for inflammable gases shall be provided with left-handed outlet screw threads for the pipe or other connections.

7. Oil or similar lubricant shall not be used on any valve or other fittings of any cylinder.

8. Each cylinder shall be submitted to the hydraulic test specified in Clause 3, Part III of Schedule A (page 24) at intervals not greater than two years. Prior to each periodical test the cylinder shall be thoroughly cleaned and examined externally and, as far as practicable, internally for surface defects, corrosion and foreign matter. Where internal rust or foreign matter is observed the cylinder should be heated to a temperature not exceeding 300° C. (572° F.) and again cleaned and examined.

9. Cylinders shall be legibly marked or labelled with the name of the gas and the name and address of the person or firm by whom it was compressed. Cases in which cylinders are packed shall be legibly marked or labelled as above in red except where cases are coloured red all over when the marking or labelling may be of any suitable colour.

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10. A notice shall be attached to every charged cylinder and/or case to indicate that it should be kept as cool as possible.

11. To prevent movement cylinders containing liquefied gas shall be covered with coir rope matting, or fitted with rope grummets or with squared metal shoes at each end, or stowed in wooden cradles. This does not apply to cylinders packed in cases.

12. Cylinders containing liquefied gases shall be stowed at least 8 feet from the ship's side, under cover in cool, well-ventilated spaces, away from inflammable cargo and living quarters and not over-stowed. They should not be stowed on deck unless they can be adequately secured and protected against the risk of damage in heavy weather and also protected from the direct rays of the sun. They may not be carried in or over holds containing coal except by permission of the Administration.*

13. Cylinders containing chlorine, hydrocyanic acid and phosgene shall not be carried in passenger ships as defined in Part I.

14. Cylinders containing chlorine, ethylene, ethyl chloride (unless rendered non-inflammable), hydrocyanic acid, methyl chloride and phosgene may not be carried in ships carrying explosives unless (a) if carried under deck, the engine and boiler room spaces intervene between the holds which contain the explosives and those which contain the cylinders; and (b) if carried on deck, the engine and boiler room spaces intervene between the holds containing the explosives and the spaces over which the cylinders are stowed.

15. Cylinders of chlorine shall not be stowed near consignments of sodium, potassium, phosphorous, copper leaf, powdered antimony, turpentine, ammonia or sal ammoniac, nor with the following compressed gases—coal gas, hydrogen, methane and acetylene.

16. The above rules do not apply to the special containers for certain liquefied gases such as glass syphons for sulphur dioxide, "sparklets" for carbon dioxide, etc., nor to the larger containers for chlorine and other specified gases. Rules concerning these, are given in Part IV.

SECTION 2—PART III—DISSOLVED GASES

Substance	Properties	Relative Density (Air=1)	Fire Risk	Other Risks
Acetylene.....	Anaesthetic.....	0.906	Inflammable. Forms violently explosive mixtures with air.	Is explosive when under pressure above two atmospheres except when absorbed in porous material.

Regulations for Cylinders

At present the only gas in this section is acetylene.

1. This gas shall be carried only in steel cylinders, containing a homogenous porous substance and with or without acetone or other solvent.

*In emigrant ships cylinders containing ammonia, carbon dioxide, ethylene, ethyl chloride, methyl chloride, nitrous oxide and sulphur dioxide may be carried as cargo only by permission of the Emigration Officer.

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2. Drawings showing the design of each type of cylinder proposed to be used shall be deposited with the Administration and no cylinder shall be used unless it is of a design approved in writing by the Administration.

3. The porous substance shall be similar in all respects to a sample deposited with the Administration.

4. The porous substance shall fill as completely as possible the cylinder and the porosity of the substance shall not exceed eighty per cent.

5. The acetone or other solvent used shall not be capable of chemical reaction with the acetylene or with the porous substance or with the metal of the cylinder, and the quantity of acetone or other solvent used shall be such that when fully charged with acetylene it shall not completely fill the porosity of the porous substance at any temperature likely to be met with in ordinary practice or use.

6. The pressure of the gas in the cylinder shall not exceed two hundred and twenty-five (225) pounds to the square inch at a temperature of sixty (60) degrees Fahrenheit (15.5°C.). Provided that no cylinder capable when empty of containing one cubic foot of water, or more, which has the ends secured to the body by welding only, and no cylinder in which the porous substance is used without acetone or other solvent, shall be charged to a pressure exceeding one hundred and fifty (150) pounds to the square inch at a temperature of sixty (60) degrees Fahrenheit (15.5°C.)

This condition shall not apply to cylinders used exclusively for marine lighting by a General or Local Lighthouse Authority.

7. Every cylinder shall be tested by hydraulic pressure to a pressure of not less than four times the pressure to which the cylinder is to be subjected in use, such hydraulic pressure to be maintained for a period of fifteen minutes, and no cylinder shall be used which on the first occasion of its being subjected to this test shall show any permanent stretch.

8. The valves of cylinders shall not contain more than seventy (70) per cent of copper in their composition and they shall be provided with left-handed outlet screw threads for the pipe or other connections.

9. The valves shall be protected against damage either by the design of the cylinders or by the provision of a stout metal cap or metal cover securely attached to the body of each cylinder. The metal cap or cover shall be so made that it is nowhere in actual contact with any part of the valve or valve body. Small cylinders packed in stout cases which will adequately protect the valves need not be provided with caps or covers.

10. Every cylinder shall have permanently and conspicuously marked upon it or upon a brass plate secured to it the name of the manufacturer and an indication that it has been authorized by the appropriate Administration. And every cylinder shall bear a label giving the date when it was last charged together with the name of the firm by whom it was charged, the address of the last charging station, and the maximum pressure allowed in the cylinder. Cases in which cylinders are packed shall be legibly marked in red with the name of the gas and the name and address of the person or firm by whom the gas was compressed except where cases are coloured red all over when the marking or labelling may be of any suitable colour.

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11. Every cylinder capable when empty of containing one cubic foot of water, or more, manufactured after the 1st August, 1919,† shall have stamped upon it the name or trade mark of the manufacturer and the serial number of the cylinder.

12. The cylinders shall be maintained in good condition and the valves shall be securely closed to prevent leakage.

13. Cylinders containing dissolved gases shall be covered with coir rope matting, or fitted with rope grummets or with squared metal shoes at each end, or stowed in wooden cradles. This does not apply to cylinders packed in cases.

14. Cylinders containing dissolved gases shall be stowed at least 8 feet from the ship's side under cover in cool well-ventilated spaces, away from living quarters and inflammable cargo and not overstowed. They should not be stowed on deck unless they can be adequately secured and protected against the risk of damage in heavy weather and also protected from the direct rays of the sun. They may not be carried in or over holds containing coal except by permission of the Administration.

15. Cylinders containing acetylene may not be carried in ships carrying explosives unless (a) if carried under deck, the engine and boiler room spaces intervene between the holds which contain the explosives and those which contain the cylinders, and (b) if carried on deck, the engine and boiler room spaces intervene between the holds containing the explosives and the spaces over which the cylinders are stowed.*

SECTION 2—PART IV

Alternative Methods of Carriage of Certain Gases

1. *Ammonia, Chlorine, phosgene and sulphur dioxide* may also be carried in large welded containers (up to about 30 cwt. gross weight) approved by the Administration† under the same conditions as the smaller cylinders except for the provisions to prevent movement (see 11 on page 29). The filling ratios must not exceed the figures given in the following Table II. Not more than 12 tons of gas may be carried in these containers in any ship without the special permission of the Administration. These large containers may not be carried in passenger ships as defined in Part I.

TABLE II.—FILLING RATIOS

Gas	Filling Ratios	
	Temperate Climates	Tropical Climates
Ammonia.....	0.53	0.49
Chlorine.....	1.24	1.16
Phosgene.....	1.24	1.16
Sulphur dioxide.....	1.24	1.16

†This is the date specified in the statutory regulations in Great Britain.

*In emigrant ships acetylene may be carried only by permission of the Emigration Officer.

†These containers are dealt with in the "Report of the Committee on Welded Containers", Department of Scientific and Industrial Research.

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2. *Liquid oxygen* may be carried on short sea passages in suitably insulated metal containers. The metal of which the containers are made must be sufficiently strong to withstand without damage the very low temperature of the liquid. Adequate relief arrangements must be made to prevent over-pressure arising from vaporization of the liquid.

The containers must be adequately protected from shock or damage in transit and be fitted with permanent lifting slings. They must be stowed on deck away from passenger accommodation and living quarters and from inflammable goods.

As there is a continual escape of gas from the containers, smoking and the use of naked lights in the vicinity of the liquid should be prohibited and a notice to that effect prominently displayed near the place of stowage.

3.† *Sulphur dioxide* may also be carried in strong glass syphons not exceeding 3 lb. capacity each and not more than seven-eighths filled. The syphons should be packed in stout wooden cases embedded in coke breeze, sawdust, kieselguhr or infusorial earth. The gross weight of each case should not exceed 2 cwt. Such cases may be carried on deck only, protected from the direct rays of the sun.

Sulphur dioxide may also be carried in small tin coated, iron or copper cylinders packed in cases as above and may be stowed either on deck or under deck in any ship.

4. The following may be carried without restriction

- (a) Small capsules (Sparklets) containing carbon dioxide up to one-third of an ounce each, provided that the filling ratio is not above 0.75 and that the capsules are packed in cardboard cartons and in strong wooden cases.
- (b) Carbon dioxide for use in the bars of ships.
- (c) Self-contained ice machines, which carry permanently liquefied sulphur dioxide or ammonia, for use on the ship.

SCHEDULE A—PART I

*Specification for Manufacture of Cylinders for Compressed
"Permanent" and Liquefied Gases.....*

1. Steel Specification A.† (High Carbon Steel.)

- (a) The steel shall be made by the acid or by the basic open hearth process and shall have the following chemical composition:—

Carbon	0.43 to 0.48 per cent
Manganese	0.5 to 0.9 per cent.
Silicon	Not to exceed 0.3 per cent.
Sulphur	Not to exceed 0.045 per cent.
Phosphorus	Not to exceed 0.045 per cent.
Iron	The remainder.

- (b) Before the necking or closing in operations, each cylinder shall be examined for maximum and minimum thickness and for external and internal surface defects.
- (c) Cylinders after manufacture shall be raised to a temperature not less than 820° C. and not exceeding 850° C. in a furnace, remaining within the furnace only for a time sufficient to ensure that all

†In emigrant ships these syphons may be carried only by permission of the Emigration Officer.

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parts of the cylinders are at the same temperature. Before the temperature falls appreciably, they shall be removed and allowed to cool in still air in such a position that they are not subjected to draughts.

- (d) Tensile tests shall be made on the material of one finished cylinder in every batch or, where the number of cylinders in any batch exceeds one hundred, from one finished cylinder in every hundred. The tensile tests shall be made on a bar cut longitudinally from the finished cylinder, of the form and dimensions shown in Fig. 1 (below). In cases where a test piece of this size cannot be obtained from the cylinder, a test piece geometrically similar shall be prepared. The yield stress and the ultimate stress shall be not less than 20 tons per square inch and 40 tons per square inch respectively. The elongation shall be not less than 14 per cent on a 6 inch gauge length, or on a corresponding length in cases where a test piece geometrically similar to the standard test piece has to be used.
- (e) Impact tests shall be made in the case of cylinders of not less than 6 inches diameter. Six test pieces shall be cut, three in a longitudinal and three in a transverse direction, from the same cylinder from which the test pieces were taken in accordance with paragraph (d), and machined to the dimensions shown in Fig. 1. The mean energy required for fracture shall be not less than 3 foot-pounds for the transverse test pieces and 5 foot-pounds for the longitudinal test pieces.
- (f) Another finished cylinder in every batch, or where the number of cylinders in any batch exceeds one hundred, one cylinder in every hundred shall be subjected to and prove satisfactory under a flattening test as follows:—

The middle part of the cylinder shall be placed between two compression blocks having flat faces $2\frac{3}{4}$ inches wide with corners rounded to $\frac{1}{4}$ inch radius, and pressure shall be applied until cracks appear at the folded surface between the compression blocks. The test shall be deemed to be unsatisfactory if the distance between the faces of the blocks in contact with the cylinder when cracks appear, is more than eight times the wall thickness of the cylinder. If the cylinders are of such length that from the cylinders used for the tests in paragraphs (d) and (e) above there can be obtained a parallel portion four diameters long, this parallel portion may be used for the flattening test.

2. Steel Specification B.† (Low Carbon Steel).

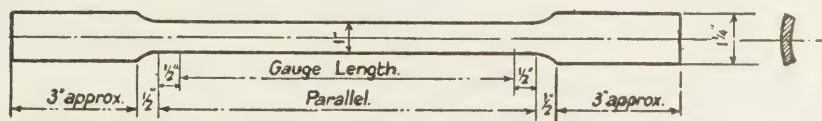
- (a) The steel shall be made by the acid or basic open hearth process and shall have the following composition:—

Carbon	0.20 to 0.25 per cent
Manganese	0.45 to 0.75 per cent
Silicon	Not to exceed 0.2 per cent
Sulphur	Not to exceed 0.045 per cent
Phosphorus	Not to exceed 0.045 per cent
Iron	The remainder

†Cylinders manufactured in accordance with the British Standards Institution Specification No. 399/1930 (High Carbon Steel Cylinders) will conform with Specification "A" above.

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- (b) Before the necking or closing in operations, each cylinder shall be examined for maximum and minimum thickness and for external and internal surface defects.
- (c) Cylinders after manufacture shall be raised to a temperature not less than 860° C. and not exceeding 890° C., remaining within the furnace only for a time sufficient to ensure that all parts of the cylinder are at the same temperature. Before the temperature falls appreciably, they shall be removed and allowed to cool in still air in such a position that they are not subjected to draughts.
- (d) Tensile tests shall be made on the material of one finished cylinder in every batch or, where the number of cylinders in any batch exceeds one hundred, from one finished cylinder in every hundred. The tensile tests shall be made on a bar cut longitudinally from the finished cylinder, of the form and dimensions shown in Figure 2.



Ends only may be flattened for gripping in Testing Machine.

FIG. 2

The yield stress shall be not less than 15 tons per square inch.

Provided that, if the yield stress is less than 17 tons per square inch, the hydraulic stretch test to be applied to the completed cylinders of that batch, in accordance with the provisions of Clause 3, shall be carried out by the manufacturers of the cylinders by the "water jacket" method.††

The ultimate stress shall be not less than 28 tons per square inch nor more than 33 tons per square inch.

The elongation shall be not less than 15 per cent, the gauge length or specimens of different thickness being as follows:—

Thickness of Test Piece, Inch	Gauge length, Inches
Over 0.40.....	8
0.20 to 0.40.....	6
Less than 0.20.....	4

- (e) Another finished cylinder in every batch, or, where the number of cylinders in any batch exceeds one hundred, one cylinder in every hundred shall be subjected to and prove satisfactory under a flattening test as follows:—

The middle part of the cylinder shall be placed between two compression blocks having flat faces $2\frac{3}{4}$ inches wide with corners rounded to $\frac{1}{4}$ inch radius, and pressure shall be applied until cracks appear at the folded surface between the compression blocks. The test shall be deemed to be unsatisfactory

††Details of the "water jacket" method will be found in the Fourth Report of the Gas Cylinders Research Committee, to be obtained direct from H.M. Stationery Office or through any book-seller.

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if the distance between the faces of the blocks in contact with the cylinder, when cracks appear, is more than four times the wall thickness of the cylinder. If the cylinders are of such length that from the cylinders used for the tests in paragraph (d) above there can be obtained a parallel portion four diameters long, this parallel portion may be used for the flattening test.

SCHEDULE A—PART II*Requirements applying to cylinders for compressed "permanent" gases*

1. Cylinders for compressed "permanent" gases shall be made in accordance with one of the Steel Specifications A or B.

2. The thickness of the cylinder wall shall not be less than the value of t (in inches) as given by the following formula:—

$$t = \frac{pD}{2f + p} \quad \dots \dots \dots (1)$$

Where p = maximum working pressure (1,800 lb.).

D = external diameter in inches.

f = 22,400 lb./sq. in. for cylinders made to Specification A and
17,920 lb./sq. in. for cylinders made to Specification B.

3. Each completed cylinder when ready to be put into service shall be subjected to a hydraulic stretch test. The proof pressure applied in this test shall be 3,000 lb./sq. in.

No pressure greater than the working pressure shall have been applied to any cylinder before the test.

The permanent stretch shown by the test shall not exceed 10 per cent of the total stretch under the test pressure. Should the permanent stretch exceed 10 per cent of the total stretch under the proof pressure, the cylinder may be re-heat treated and if it then passes the test it may be retained in service.

The re-heat treatment applied shall be, in the case of cylinders made to Specification A that given in paragraph (c) of Specification A and in the case of cylinders made to Specification B that given in paragraph (c) of Specification B.

4. Each cylinder shall be permanently and visibly marked with:—

- (a) manufacturer's and owner's identification marks and rotation number;
- (b) date of last hydraulic test. This may be indicated by the month and year or by the year with a symbol to denote the quarter of the year;
- (c) a mark denoting the specification to which the cylinder has been manufactured. This mark may be that of the British Standards Institution Specification No. 399/1930 (B.S.S. No. 399/1930) for cylinders to Specification A or Specification No. 400/1931 (B.S.S. No. 400/1931) for cylinders to Specification B;
- (d) chemical symbols (to be stamped on the valve) to indicate the gas for which the cylinder is used.

The marks shall be stamped on the neck end of the cylinder with the exception of the manufacturer's mark, which may be on the base.

5. If, for any reason, the re-heat treatment of any cylinder becomes necessary, that specified in Clause 3 above shall be applied. After any such

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re-heat treatment the cylinder shall be thoroughly examined and subjected to the hydraulic stretch test.

SCHEDULE A—PART III

Requirements applying to cylinders for liquefied gases

1. Cylinders for liquefied gases shall be made in accordance with Steel Specification B.

2. The thickness of the cylinder wall shall not be less than the value of t (in inches) as given by the following formulae:—

(a) when the working pressure is 1,500 lb./sq. in. or over

$$t = \frac{pD}{2f + p} \quad \dots \dots \dots (2)$$

(b) when the working pressure is 500 lb./sq. in. or less

$$t = \frac{pD}{4f} \left(1 + \sqrt{1 + \frac{633f}{p^2D}} \right) \dots \dots \dots (3)$$

(c) when the working pressure is between 500 lb./sq. in. and 1,500 lb./sq. in.

$$t = t_3 + (t_2 - t_3) \left(\frac{p}{1,000} - 0.5 \right) \dots \dots \dots (4)$$

where p =maximum internal working gauge pressure; lb./sq. in. (see Table I.)

D =external diameter in inches.

f =17,920 lb./sq. in.

t_2 =value of t in formula (2), taking p as 1,500 lb./sq. in. and the required value for D .

t_3 =value of t in formula (3), taking p as 500 lb./sq. in. and the required value for D .

[Values of t for various values of p and D are given in the following Table III (a), (b) and (c)].

TABLE III.—*Thickness of Wall (t) of Cylinders (to the nearest 0.005 inch)*
Working stress= f =17,920 lb./sq. in.

(a) Cylinders for use as containers for high-pressure gases (internal pressure not less than 1,500 lb./sq. in.) calculated from the formula:—

$$t = \frac{pD}{2f + p}$$

D=External diameter. In.	p =Internal working pressure (gauge); lb./sq. in.					
	1,500	1,600	1,700	1,800	1,900	2,000
3.....	0.1205	0.1280	0.1360	0.1435	0.1510	0.1585
4.....	0.1605	0.1710	0.1815	0.1915	0.2015	0.2115
5.....	0.2010	0.2135	0.2265	0.2390	0.2515	0.2645
6.....	0.2410	0.2560	0.2720	0.2870	0.3020	0.3170
7.....	0.2810	0.2985	0.3175	0.3350	0.3525	0.3700
8.....	0.3215	0.3420	0.3630	0.3825	0.4030	0.4230
9.....	0.3615	0.3840	0.4080	0.4305	0.4530	0.4755
10.....	0.4015	0.4275	0.4530	0.4780	0.5035	0.5285
11.....	0.4420	0.4700	0.4985	0.5260	0.5540	0.5815
12.....	0.4820	0.5125	0.5440	0.5740	0.6045	0.6345

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(b) Cylinders for use as containers for low-pressure gases (internal pressure not exceeding 500 lb./sq. in.) calculated from the formula:—

$$t = \frac{pD}{4f} \left(1 + \sqrt{1 + \frac{633f}{p^2D}} \right)$$

D=External diameter. In.	p=Internal working pressure (gauge); lb./sq. in.				
	100	200	300	400	500
3.....	0.0855	0.0900	0.0950	0.1000	0.1050
4.....	0.0995	0.1060	0.1120	0.1190	0.1260
5.....	0.1125	0.1200	0.1280	0.1365	0.1455
6.....	0.1240	0.1330	0.1430	0.1535	0.1645
7.....	0.1345	0.1455	0.1570	0.1695	0.1825
8.....	0.1445	0.1570	0.1705	0.1850	0.2000
9.....	0.1540	0.1685	0.1835	0.2000	0.2170
10.....	0.1630	0.1790	0.1960	0.2145	0.2340
11.....	0.1720	0.1895	0.2085	0.2285	0.2505
12.....	0.1805	0.1995	0.2205	0.2430	0.2670

(c) Cylinders for use as containers for gases of medium pressure (internal pressure not less than 500 lb./sq. in. and not exceeding 1,500 lb./sq. in.) calculated from the formula:—

$$t = t_3 + (t_2 - t_3) \left(\frac{p}{1,000} - 0.5 \right)$$

D=External diameter. In.	p=Internal working pressure (gauge); lb./sq. in.								
	600	700	800	900	1,000	1,100	1,200	1,300	1,400
3.....	0.1065	0.1080	0.1095	0.1110	0.1125	0.1145	0.1160	0.1175	0.1190
4.....	0.1295	0.1330	0.1365	0.1400	0.1435	0.1465	0.1500	0.1535	0.1570
5.....	0.1510	0.1565	0.1620	0.1675	0.1730	0.1790	0.1845	0.1900	0.1955
6.....	0.1720	0.1800	0.1875	0.1950	0.2025	0.2105	0.2180	0.2255	0.2330
7.....	0.1925	0.2020	0.2120	0.2220	0.2320	0.2425	0.2515	0.2615	0.2710
8.....	0.2120	0.2245	0.2365	0.2485	0.2605	0.2730	0.2850	0.2970	0.3090
9.....	0.2315	0.2460	0.2605	0.2750	0.2895	0.3035	0.3180	0.3325	0.3470
10.....	0.2505	0.2675	0.2840	0.3005	0.3175	0.3340	0.3510	0.3680	0.3845
11.....	0.2695	0.2890	0.3080	0.3270	0.3460	0.3655	0.3845	0.4035	0.4230
12.....	0.2885	0.3100	0.3315	0.3530	0.3745	0.3960	0.4175	0.4390	0.4605

3. Each completed cylinder when ready to be put into service shall be subjected to a hydraulic stretch test. The proof pressure applied in this test shall be the value of *p* calculated from the formula:

$$p = \frac{2 ft}{D - t} \dots \dots \dots (5)$$

with the appropriate values for *D* and *t* and a value for *f* of 33,600 lb./sq. in. [Table IV (a) and (b)]. The test pressures for cylinders for carbon dioxide, nitrous oxide, and ethylene is 3,360 lb. per square inch in all cases. No pressure greater than the working pressure shall have been applied to any cylinder before the test.

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TABLE IV.—Test Pressure, in lb./sq. in. to the nearest 10 lb./sq. in. Test Stress=33,600 lb./sq. in.

(a) Test pressure for cylinders of dimensions given in Table III (b).

Diameter. In.	Internal working pressure (gauge); lb./sq. in.				
	100	200	300	400	500
3.....	1,970	2,080	2,200	2,320	2,440
4.....	1,710	1,830	1,940	2,060	2,190
5.....	1,550	1,650	1,770	1,890	2,010
6.....	1,420	1,520	1,640	1,760	1,890
7.....	1,320	1,430	1,540	1,670	1,800
8.....	1,240	1,350	1,460	1,590	1,720
9.....	1,170	1,280	1,400	1,530	1,660
10.....	1,110	1,230	1,340	1,470	1,610
11.....	1,070	1,180	1,300	1,430	1,570
12.....	1,030	1,140	1,260	1,390	1,530

(b) Test pressure for cylinders of dimensions given in Table III (c).

Diameter. In.	Internal working pressure (gauge); lb./sq. in.								
	600	700	800	900	1,000	1,100	1,200	1,300	1,400
3.....	2,470	2,510	2,550	2,580	2,620	2,670	2,700	2,740	2,780
4.....	2,250	2,310	2,370	2,440	2,500	2,550	2,620	2,680	2,750
5.....	2,090	2,170	2,250	2,330	2,410	2,500	2,570	2,650	2,730
6.....	1,980	2,080	2,170	2,260	2,350	2,440	2,530	2,620	2,720
7.....	1,900	2,000	2,100	2,200	2,300	2,400	2,500	2,610	2,710
8.....	1,830	1,940	2,050	2,150	2,260	2,370	2,480	2,590	2,700
9.....	1,770	1,890	2,000	2,120	2,230	2,350	2,460	2,580	2,690
10.....	1,730	1,850	1,960	2,080	2,200	2,330	2,440	2,570	2,690
11.....	1,690	1,810	1,940	2,060	2,180	2,310	2,430	2,560	2,690
12.....	1,660	1,780	1,910	2,040	2,170	2,290	2,420	2,550	2,680

The permanent stretch shown by the test shall not exceed 10 per cent of the total stretch under the test pressure. Should the permanent stretch exceed 10 per cent of the total stretch under the proof pressure, the cylinder may be re-heat treated and if it then passes the test it may be retained in service. The re-heat treatment applied shall be that given in paragraph (c) of Specification B.

4. Each cylinder shall be permanently and visibly marked with:—

- manufacturer's and owner's identification marks and rotation number.
- date of last hydraulic test. This may be indicated by the month and year or by the year with a symbol to denote the quarter of the year.
- a mark denoting the specification to which the cylinder has been manufactured. This mark may be that of the British Standard Institution Specification No. 401/1931 (B.S.S. No. 401/1931) for cylinders made to Specification B.
- chemical symbols (to be stamped on the valve) to indicate the gas for which the cylinder is used.

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- (e) the internal pressure required for the hydraulic test.
- (f) the tare and gross weight.

The marks shall be stamped on the neck end of the cylinder with the exception of the manufacturer's mark, which may be on the base.

5. If, for any reason, the re-heat treatment of any cylinder becomes necessary, that specified in Clause 3 above shall be applied. After any such re-heat treatment the cylinder shall be thoroughly examined and subjected to the hydraulic stretch test.

SCHEDULE B

Conditions for the acceptance of existing cylinders, manufactured otherwise than in accordance with Specification A or B on pages

PART I*Compressed "permanent" gases*

1. These cylinders may be:—

- (a) made of wrought iron and lap-welded.
- (b) lap-welded or of seamless construction and made of steel to the following specification:
the steel shall contain not more than 0.25 per cent of carbon and not less than 99 per cent of total iron.
the ultimate stress of the steel shall be not less than 26 tons per square inch and not more than 33 tons per square inch. The ultimate elongation shall be not less than 1.2 inches on a test piece of 8 inch gauge length. The test piece shall be cut from a finished cylinder.
- (c) steel to Admiralty specification if made by British manufacturers prior to the year 1921 (see paragraph 4).

2. The thickness of the cylinder wall shall not be less than the value of t (in inches) as given by the following formula:—

$$t = \frac{p D}{2f + p}$$

Where f = 14,560 lb./sq. in. for wrought iron cylinders.

= 16,800 lb./sq. in. for lap-welded steel cylinders to the specification in paragraph 1 (a).

= 17,920 lb./sq. in. for seamless steel cylinders to the specification in paragraph 1 (b).

= 22,400 lb./sq. in. for cylinders made to the specification in paragraph 1 (c).

3. Cylinders made by British manufacturers prior to the year 1921 to Admiralty specification shall be of steel having from 0.43 to 0.53 per cent of carbon and may be conveyed by sea provided:

- (i) In the case of complete cylinders that they have been re-heat treated and tested by the manufacturers with satisfactory results.
- (ii) In the case of cylinders made by cutting the original cylinder into lengths, that the new cylinders as constructed will stand the

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foregoing mechanical and hydraulic tests for finished cylinders, except that the flattening test may be limited to a flattening to 10 thicknesses of the cylinder walls without fracture occurring.

4. Each cylinder shall be permanently and visibly marked with:
 - (a) manufacturer's and owner's identification marks and rotation number.
 - (b) date of last hydraulic test. This may be indicated by the month and year or by the year with a symbol to denote the quarter of the year.
 - (c) chemical symbols (to be stamped on the valve) to indicate the gas for which the cylinder is used.

The marks shall be stamped on the neck end of the cylinder with the exception of the manufacturer's mark, which may be on the base.

SCHEDULE B—PART II

Liquefied gases

1. The cylinders may be:
 - (a) made of wrought iron and lap-welded, or
 - (b) lap-welded or of seamless construction and made of steel to the specification in paragraph 1 (b) of Part I above.

2. The thickness of the cylinder wall shall not be less than the value of t (in inches) as given by the following formula:

$$t = \frac{p D}{2(f + p)}$$

Where $f=14,560$ lb./sq. in. for wrought iron cylinders.

$=17,920$ lb./sq. in. for seamless steel cylinders to the specification in Part I, paragraph 1.

In the case of cylinders for ammonia $f=13,440$ lb./sq. in. for wrought iron and $15,680$ lb./sq. in. for steel cylinders.

3. Each cylinder shall be permanently and visibly marked with:
 - (a) manufacturer's and owner's identification marks and rotation number.
 - (b) date of last hydraulic test. This may be indicated by the month and year or by the year with a symbol to denote the quarter of the year.
 - (c) chemical symbols (to be stamped on the valve) to indicate the gas for which the cylinder is used.

The marks shall be stamped on the neck end of the cylinder with the exception of the manufacturer's mark, which may be on the base.

SECTION 3.—SUBSTANCES WHICH BECOME DANGEROUS BY
INTERACTION WITH WATER OR AIR

1. *General.*—This Section includes substances which, by interaction with water or air, are liable to become spontaneously inflammable, or corrosive, or to give off inflammable, corrosive, or poisonous gas. It does not include substances which are themselves easily inflammable but in

Canada Shipping Act—continued

which no rise of temperature takes place when they are exposed to water or air. The Section includes, for example, the alkali metals and alkaline earth metals, some granulated and powdered metals and alloys, phosphorus, metallic carbides, some chlorides, phosphides and silicides, and easily oxidizable organic compounds.

2. The Section is divided into two groups (A) substances which become dangerous by interaction with water and (B) substances which become dangerous by interaction with air. It is to be noted that substances falling into group (A) also become dangerous by interaction with the moisture present in air and to this extent fall also into group (B). In general, therefore, the precautions required will be similar for the two groups.

3. *Packing.*—The substances in this Section require to be packed in water-tight and/or air-tight packages that should be sufficiently strong to withstand ordinary rough usage. Hermetically sealed iron drums are generally suitable, but some of the substances require either a different container or additional special precautions.

Attention is drawn to the provisions in Section 7 for chemicals and medicinal preparations in limited quantities in mixed consignments.

Where no limit of weight is specified there is no restriction on the weight of packages.

4. *Stowage.*—As regards stowage the substances are of such a nature that, generally, they should be stowed in a cool, dry, well-ventilated and accessible place. They may, therefore, be carried under deck in a well-ventilated and easily accessible compartment in which no explosives are stowed and away from all acids, foot-stuffs and living quarters. White or yellow phosphorus and calcium phosphide, however, should be carried on deck.

SECTION 3.—GROUP A—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH WATER

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label A.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Aluminium, granulated or powder.	Evolves hydrogen in contact with water.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	.....	.....	(A) Away from living quarters, acids, caustic alkalies and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A)*Allowed in small quantities
		(B) Hermetically sealed iron or steel drums.	.....	.....	(B) As for (A).	(B) Allowed
Aluminium chloride	Becomes corrosive in contact with water.	(A) Hermetically sealed tins or earthenware jars packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	(A) Away from acids. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A)*Allowed
		(B) Hermetically sealed iron or steel drums.	(B) As for (A).	(B)*Allowed

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SECTION 3.—GROUP A—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH WATER—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Aluminium ferro silicon (alsimin).	Evolves hydrogen in contact with water.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	.....	.....	(A) Away from living quarters, acids and caustic alkalies. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) *Allowed
		(B) Hermetically sealed iron or steel drums.	.....	.....	(B) As for (A).	(B) Not allowed.
		(C) Stout bags, if in lumps or ingots, on voyages not exceeding 14 days.	.....	.....	(C) As for (A).	(C) Not allowed
Barium metallic	Liable to take fire in contact with air, water or acids.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) Not allowed.
		(B) Hermetically sealed iron or steel drums.	5 cwt.	.....	(B) Under deck as for (A).	(B) Not allowed.
Calcium carbide	Evolves inflammable gas (acetylene) on exposure to water or damp air.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed, and not overstowed by other cargo.	(A) *Allowed
		(B) Hermetically sealed iron or steel drums.	.....	2 cwt.	(B) Under deck as for (A).	(B) Not allowed.
Calcium cyanamide (nitrolim) containing: (a) not more than 0.5% of calcium carbide.	Dangerous in contact with water in view of its content of calcium carbide.	(A) Stout sacks with a double lining of paper impregnated with tar, or twill bags coated with tar internally and lined with strong crepe paper.	.....	.....	(A) Away from living quarters and acids. Under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) Allowed
		(B) Hermetically sealed iron or steel drums.	.....	.....	(B) On deck, or under deck away from living quarters.	(B) Allowed
		(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed and not overstowed by other cargo.	(A) *Allowed
(b) more than 0.5% of calcium carbide.		(B) Hermetically sealed iron or steel drums.	.....	2 cwt.	(B) Under deck as for (A).	(B) Not allowed
Calcium metallic.	Liable to take fire in contact with air, water, or acids.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) Not allowed.
		(B) Hermetically sealed iron or steel drums.	5 cwt.	(B) Under deck as for (A).	(B) Not allowed.

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Canada Shipping Act—continued

SECTION 3.—GROUP A—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH WATER—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label A.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Calcium phosphide.	Evolves spontaneously inflammable and poisonous gas (phosphuretted hydrogen) in contact with water or damp air.	Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case; this limited to 28 lb. and 4 in a case.	.....	1 cwt.	On deck only away from inflammables, acids and living quarters. In ships carrying explosives the engine and boiler room spaces must intervene between the holds containing the explosives and the spaces over which this substance is stowed.	Not allowed
Calcium silicide.	Evolves inflammable gas (hydrogen and sometimes acetylene) in contact with water or damp air with mineral acids, spontaneously inflammable gas (siliconhydride) is evolved.	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and inflammable substances. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed, and not overstowed by other cargo.	(A) Not allowed.
Ferro silicon containing: (a) between 30% and 75% silicon. (b) up to 15% and above 80% silicon. (c) between 15% and 30% and between 75% and 80% silicon.	Evolves poisonous gas in contact with water.	(B) Hermetically sealed iron or steel drums.	5 cwt.	.....	(B) Under deck as for (A).	(B) Not allowed.
		Not allowed.				
		Strong cases, barrels, or drums.	.....	.....	As ordinary cargo, subject to certificate as to percentage of silicon; away from caustic alkalies.	Allowed.
		Strong wood cases or barrels, or in drums if finely powdered. If produced in electric furnace, each consignment to be accompanied by a certificate from maker or shipper stating the percentage of silicon it contains and that, after manufacture, it was broken up into small pieces or crushed to fine powder and so stored under cover, but exposed to the weather, for not less than 10 days previous to shipment.	.....	.....	Away from living quarters and caustic alkalies. On deck, or under deck in a dry, well-ventilated and easily accessible space.	Not allowed
Lime, quick or unslaked.	Develops heat in contact with water. Is sometimes used in small quantities for packing with machinery and other metal goods to absorb moisture, to which no objection need be raised	(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	.....	.....	(A) Away from acids. On deck, or under deck in a cool, well-ventilated space in which no explosives are stowed.	(A) *Allowed in small quantities.
		(B) Hermetically sealed iron or steel drums or hardwood casks.	(B) As for (A).	(B) As for (A).

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Canada Shipping Act—continued

SECTION 3.—GROUP A—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH WATER—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label A.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Magnesium metal.	Evolves inflammable gas (hydrogen) in contact with damp air, water or acids.					
powder.		(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	2 cwt.	.....	(A) Away from living quarters, acids and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) *Allowed
ribbon.		(B) Hermetically sealed iron or steel drums.	.....	2 cwt.	(B) As for (A).....	(B) Not allowed.
		Strong tin-lined cases, in a strong outer case.	.....	.....	Away from living quarters acids and strong supporters of combustion; also from risk of contact with sea water. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	*Allowed in small quantities.
ingots or sticks.		Strong cases lined with waterproof paper, in a strong outer case.	.....	.....	As for ribbon.	*Allowed.
Nitre cake.		(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	.....	.....	(A) On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) Allowed
	Becomes corrosive in contact with water.	(B) Hermetically sealed iron or steel drums.	.....	.....	(B) As for (A).	(B) Allowed
Potassium metallic and Sodium metallic.		(A) Hermetically sealed tins containing not more than 28 lb. packed with sawdust in an outer hermetically sealed metal case. Each ingot of potassium or sodium should, before packing, be plunged into a bath of mineral oil.	.....	1 cwt.	(A) Away from living quarters, acids, inflammables and strong supporters of combustion (see Section 7). Under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed, and not over-stowed by other cargo.	(A) Not allowed.
	Liable to take fire in contact with air, water, or acids.	(B) Steel drums, subject to the following conditions: 1. Each steel drum must be made of sheet of not less than .064 inch thickness. It must be watertight and closed with an air and watertight lid. The lid should be of such construction that the neck of the drum closes on to a rubber seating carried in the lid, the necessary pressure being applied and maintained by an eccentric lever locked in position. The lever of the lid should be securely fastened with a suitable spiral fastening or with a padlock.	3 cwt.	(B) As for (A).	(B) Not allowed.

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SECTION 3.—GROUP A—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH WATER—*Concluded*

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label A.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Zinc, granulated, powdered or dust.	Evolves hydrogen in contact with water, damp air or acids.	2. The steel drum must be contained in a heavily battened wooden case made of $\frac{1}{2}$ -inch boards; the battens to be additionally secured with iron hoops. The lid of this case must be securely bolted down in such a way that the bolts are protected from damage.				
		3. The steel drum must be prevented from moving by suitable battens securely fixed inside the case and as an additional security, against movement, the space between the drum and wooden case should be filled with sawdust.				
		4. Each ingot of potassium or sodium should, before packing, be plunged into a bath of mineral oil.				
		(A) Hermetically sealed tins packed with sawdust, woodwool, or other suitable packing material, and contained in a strong outer case.	.....	.....	(A) Away from living quarters, acids, caustic alkalies and strong supporters of combustion (see Section 7). On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A) *Allowed in small quantities.
		(B) Hermetically sealed iron or steel drums.	.....	.....	(B) As for (A).....	(B) * Allowed in small quantities.

SECTION 3.—GROUP B.—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH AIR.

Bleaching powder (Chloride of Lime).	In contact with damp air evolves chlorine gas which, though easily detected by smell, would be dangerous in a confined space.	(A) Sound wooden casks in temperate climates.	.....	.....	(A) Away from foodstuffs, living quarters, acids and turpentine. In a cool, dry, well-ventilated space.	(A) * Allowed
		(B) Zinc-lined cases.	.....	.....	(B) As for (A).....	(B) * Allowed
		(C) Strong iron or steel drums.	.....	.....	(C) As for (A).....	(C) * Allowed
Oxide of iron, spent.	Liable to spontaneous combustion.	Should be weathered and cooled for 3 weeks for Home Trade voyages and 8 weeks for Foreign voyages.	.....	.....	If properly weathered may be carried in bulk in a hold not under living quarters.	*Allowed.
Paranitrosodimethylaniline (accelerene).	If dry, is liable to spontaneous combustion; is also poisonous and will taint foodstuffs and colour other materials.	With 50 per cent moisture may be carried in sound watertight casks. Iron containers should not be used.	.....	.....	Away from foodstuffs, living quarters and acids. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	*Allowed in small quantities.
Phosphorus amorphous.	Not liable to spontaneous combustion.	(A) Airtight tins containing not more than 28 lbs. packed in strong wooden cases.	2 cwt.	(A) Away from foodstuffs, living quarters and strong supporters of combustion (see Section 7). On deck, or under deck in a cool and easily accessible space in which no explosives are stowed.	(A) * Allowed on deck only.
		(B) Strong iron drums.	(B) As for (A).	(B) * Allowed on deck only.

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SECTION 3.—GROUP B—SUBSTANCES WHICH BECOME DANGEROUS BY INTERACTION WITH AIR—*Concluded*

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Phosphorus, white, yellow or stick.	Spontaneously inflammable in air.	(A) Under water in hermetically sealed metal containers of adequate strength containing not more than 56 lb. each, packed with sawdust in a strong wooden case.	.....	1 cwt.	(A) On deck only away from inflammables, living quarters and strong supporters of combustion (see Section 7). In ships carrying explosives the engine and boiler room spaces must intervene between the holds containing the explosives and the spaces over which this substance is stowed.	(A) Not allowed.
		(B) Under water in strong iron drums of approved design.	5 cwt.	.....	(B) As for (A).	(B) Not allowed.
Phosphorus, sulphides of.	Liable to spontaneous combustion unless free from white or yellow phosphorus.	(A) Airtight tins containing not more than 28 lb. packed in strong wooden cases.	2 cwt.	.....	(A) Away from foodstuffs, living quarters, acids and inflammables. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	(A)* Allowed on deck only.
		(B) Hermetically sealed iron or steel drums.	2 cwt.	.....	(B) As for (A).....	(B)* Allowed on deck only.
Potassium, sulphide of; and Sodium, sulphide of.	When in the anhydrous form, liable to spontaneous combustion; but no risk when in the fully hydrated (crystalline) condition.	Strong airtight drums. When fully hydrated (crystalline), sound wooden casks or cases.	Away from living quarters and acids. On deck, or under deck in a cool, well-ventilated and easily accessible space in which no explosives are stowed.	*Allowed.

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SECTION 4—SUBSTANCES GIVING OFF INFLAMMABLE VAPOURS

1. This Section includes liquids which have a flash point not higher than 150° F. (65·6° C.) and all mixtures with such liquids. The following definitions are used:—

Petroleum.—The term “petroleum” includes crude petroleum, oil made from petroleum or from coal, shale, peat or other bituminous substances and other products of petroleum.

Petroleum Spirit.—The term “petroleum spirit” means petroleum which has a flash point, as determined by the Abel close test, below 73° F. (22·8° C.).

Flash Points.—For substances having a flash point below 90° F. (32·2° C.) the flash point is that determined by the Abel close test; for substances having a flash point of 90° F. (32·2° C.) up to 120° F. (48·9° C.) the flash point is that determined by a modified form of the Abel close test; and for substances having a flash point above 120° F. (48·9° C.) the flash point is that determined by the Pensky-Martens apparatus.†

†The standard methods for testing flash points are given in “Standard Methods of Testing Petroleum and its Products”, 1929 Edition, published by the Institution of Petroleum Technologists.

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NOTE.—While oils and similar substances having flash points above 150° F. (65·6° C.) are not specifically included in this Section and, in general, do not require special precautions other than those applicable to any combustible substance, it should be realized that, in climates where the temperature of the air approaches the flash points of substances, precautions similar to those required for substances of lower flash points become desirable.

2. The substances in this Section include petroleum (see definition in paragraph 1) and its various products including petroleum spirit, the alcohols and alcohol derivatives, ether, and also certain other substances such as carbon disulphide. The flash points of these substances are generally known.

The Section also includes paints, varnishes, enamels and solutions in which the liquid used is one or other of the substances mentioned above or a mixture of such substances. They should be grouped according to their composition, flash point and other properties as certified by the makers.

The main divisions of the Section are (a) substances having a flash point below 73° F. (22·8° C.) and (b) substances having a flash point from 73° F. to 150° F. (65·6° C.).

3. *General Considerations.*—The chief danger associated with the carriage of substances in this Section is the escape of inflammable vapour which may either form an inflammable mixture with air, leading to an explosion, or carry fire, through becoming ignited by a spark or flame, to the place in which the substances are stowed. It is, therefore, necessary to stow the substances well away from naked lights, fires and any sources of heat. Where the bulk of the cargo in any compartment consists of substances having a flash point below 73° F. the electric light cables passing through the compartments should be disconnected; this does not apply to power cables for electrically driven winches provided that the power cables are of suitable design and construction and are effectively protected against risk of damage from cargo. In general (except when carried in bulk), these substances should be packed in hermetically sealed containers which should either be specially protected or be sufficiently strong to withstand rough usage. To provide for thermal expansion there should be an adequate amount of free space in the containers (see pages 32-33).

In many cases the vapour, besides being inflammable, is poisonous. The substances should therefore be carried away from living quarters and either on deck or in holds which are either as nearly as possible hermetically sealed or well ventilated, the ventilators being carried well clear of the deck and covered with fine wire gauze. In the latter case they should, as a rule, be stowed in a compartment next below the weather deck and adjacent to a hatchway so as to be easily accessible. When carried on deck, precautions should be taken to protect the packages from the direct rays of the sun and measures should be taken to prevent the use of lights or smoking in the neighbourhood of the packages.

It must be remembered that danger will continue in the compartments in which these substances have been carried after the goods have been discharged until the compartment has been thoroughly cleaned and ventilated to remove any liquid or vapour that may be in it; also, that the carriage of empty drums which have contained petroleum spirit or other liquids having a low flash point, requires precautions similar to those for the carriage of the original substance. To prevent the escape of vapour the

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screw plugs should be tightly adjusted. It must be emphasized that naked lights should not be used in any compartments in which such goods have been carried until the compartments have been tested and certified free from vapour.

4. *Marking.*—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label B. Particulars regarding flash point will be sufficient if they indicate whether the substance flashes below 73° F. (22·8° C.) or between 73° F. and 150° F. (65·6° C.).

5. *Packing.*—Subject to the special rules contained in paragraph 7 the substances in this Section may be carried under the conditions specified in the following table. A list of the substances ordinarily carried on board ship is given in paragraph 6, page 34.

SECTION 4.—SUBSTANCES GIVING OFF INFLAMMABLE VAPOURS

MARKING.—Every package must be marked as laid down in paragraph 4, page 32

Substance	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I.
			Gross	Net		
Flash point below 73° F. (22·8° C.) (a) Immiscible with water.	(A) Small hermetically sealed tins, tubes, glass or earthenware containers up to 1 gallon capacity, packed with a suitable absorbent material such as sawdust or thick corrugated paper in strong cases. The small tins or tubes may be packed in card boxes instead of with corrugated paper.	(A) 5% for temperate climates 7½% for tropical climates. For ether, or any mixture in which the proportion of ether exceeds 25%—7½% and 10% for temperate and tropical climates respectively.	.....	16 gals. per case	(A) On or under deck. Not on deck in ships carrying explosives unless the engine and boiler rooms intervene between the holds containing the explosives and the spaces over which these substances are stowed; also, not in the same compartment or in one adjacent to that in which explosives and certain substances in Section 3 are stowed.	(A)* On deck in small quantities.
	(B) Sealed metal containers up to 5 gallons capacity in a wooden crate or case.	(B) As for (A).	.....	10 gals. per crate or case	(B) On or under deck as for (A). If on deck the maximum total quantity must not exceed 15 tons inclusive of all other substances in this Section, but exclusive of substances miscible with water if they are separated by a permanent erection extending from side to side of the ship from the substances which are immiscible. If under deck the special conditions set out in paragraph 7 (a) (ii) for petroleum spirit apply.	(B) Not allowed except in the case of petroleum spirit when carried as in paragraph 7 (a) (i).
	(C) Steel drums or steel barrels.	(C) 5% for temperate climates and 7½% for tropical climates.	.....	50 gal.	(C) On or under deck as for (B).	(C) Not allowed

* In emigrant ships, limited quantities may be carried by permission of the Emigration Officer.

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SECTION 4.—SUBSTANCES GIVING OFF INFLAMMABLE VAPOURS—Continued

MARKING.—Every package must be marked as laid down in paragraph 4, page 32

Substance	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I.
			Gross	Net		
		For ether, or any mixture in which the proportion of ether exceeds 25%— $7\frac{1}{2}\%$ and 10% for temperate and tropical climates respectively.	.....	100 gal.	Under deck as for (B).	Not allowed.
(b) Miscible with water.	(A) Small hermetically sealed tins, tubes, glass or earthenware containers up to 1 gallon capacity packed with a suitable absorbent material such as sawdust or thick corrugated paper in strong cases. The small tins or tubes may be packed in card boxes instead of with corrugated paper.	(A) 5% for temperate and $7\frac{1}{2}\%$ for tropical climates respectively. For acetone, or any mixture in which the proportion of acetone exceeds 25%— $7\frac{1}{2}\%$ and 10% for temperate and tropical climates respectively.	.....	16 gal.	(A) On or under deck. Not on deck in ships carrying explosives unless the engine and boiler rooms intervene between the holds containing the explosives and the spaces over which these substances are stowed; also, not in the same compartment or in one adjacent to that in which explosives and certain substances in Section 3 are stowed.	(A)* On deck subject to a maximum of 2 tons of substances in this Section, unless the permission of the Administration has been obtained for a larger quantity.
Flash points below 73°F. (22.8°C.)— <i>Cont.</i> (b) Miscible with water— <i>cont.</i>	(B) Sealed metal containers up to 5 gallons capacity in a wooden crate or case.	(B) 5% for temperate and $7\frac{1}{2}\%$ for tropical climates respectively. For acetone, or any mixture in which the proportion of acetone exceeds 25%— $7\frac{1}{2}\%$ and 10% for temperate and tropical climates respectively.	.....	10 gal. per crate or case.	(B) On or under deck, as for (A), without limit as to total quantity if separated by a permanent erection extending from side to side of the ship from other substances in this Section which are immiscible with water. If under deck the special conditions set out in paragraph 7 (a) (ii) for petroleum spirit apply.	(B) As for (A).
Flash points from 73°F. (22.8°C.) to 150°F. (65.6°C.).	(C) Steel drums or steel barrels.	(C) As for (B).....	.....	100 gal.	(C) On or under deck as for (B).	(C) As for (A).
	(A) Small hermetically sealed tins, tubes, glass or earthenware containers up to 1 gallon capacity packed with a suitable absorbent material such as sawdust or thick corrugated paper in strong cases. The small tins or tubes may be packed in card boxes instead of with corrugated paper.	(A) 5% for temperate climates and $7\frac{1}{2}\%$ for tropical climates.	.....	16 gal. per case.	(A) On or under deck. Not on deck in ships carrying explosives unless the engine and boiler rooms intervene between the holds containing the explosives and the spaces over which these substances are stowed; also not in the same compartment or in one adjacent to that in which explosives and certain substances in Section 3 are stowed.	(A)* On or under deck.
	(B) Sealed metal containers up to 5 gallons capacity in a wooden crate or case.	(B) As for (A).....	.....	10 gals. per crate or case.	(B) On or under deck as for (A), without limit except as in (B) for substances flashing below 73°F. immiscible with water (page 32).	(B) On or under deck subject to a maximum of 2 tons of substances in this Section, unless the permission of the Administration has been obtained for a larger quantity.

* In emigrant ships, limited quantities may be carried on deck by permission of the Emigration Officer.

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SECTION 4.—SUBSTANCES GIVING OFF INFLAMMABLE VAPOURS—*Concluded*

MARKING.—Every package must be marked as laid down in paragraph 4, page 32

Substance	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I.
			Gross	Net		
	(C) Strong sound watertight wooden casks [except for White spirit (turpentine substitute)].	(C) As for (A).....	.....	50 gals.	(C) On or under deck as for (B).	(C) As for (B).
	(D) Steel drums or steel barrels.	(D) As for (A).....	.....	50 gals. 100 gals.	(D) On or under deck as for (B). Under deck as above.	(D) As for (B). As for (B).

* In emigrant ships, limited quantities may be carried by permission of the Emigration Officer.

6. *List of inflammable substances.*—This list contains only the substances which, hitherto, have been carried generally and it is not exhaustive. Substances not included will fall into their appropriate places according to their flash points and according also as to whether or not they are miscible with water.

(a) *Flash point below 73° F. (22·8° C.).*

(i) *Immiscible with water.*

†Petroleum spirit (see definition in paragraph 1).

Benzine.

Benzol.

Benzolene.

Gasolene.

Lythene.

Motor Spirit.

Naphtha.

Toluol.

Xyol.

Butyl acetate (iso).

†Carbon disulphide.

†Ether (sulphuric).

Ethyl acetate.

†Nickel carbonyl.

(ii) *Miscible with water.*

Acetone.

Diacetone alcohol.

Ethyl alcohol (spirits of wine).

Methyl alcohol.

Methylated spirit.

Propyl alcohol.

Pyridine.

(b) *Flash point 73° F. and above.*

Amyl acetate.

Amyl alcohol.

Butyl acetate (normal).

Butyl alcohol.

Coal tar.

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Ethyl lactate.
 Kerosene.
 Mineral oil.
 Paraffin.
 Shale oil.
 Turpentine.
 White spirit (turpentine substitute).

(c) Variable flash point.

The following substances are of variable composition and should be grouped, therefore, according to their composition, flash points and other properties as certified by the makers:—

Celluloid solution.
 Collodion cotton in solution in, or wet with, inflammable liquids.
 †Enamels.
 †India rubber and gutta percha solution.
 Paints.
 “ bituminous.
 Photogravure printing inks.
 †Polishes, boot creams, etc.
 “ linoleum.
 “ liquid metal polish.
 Rosin oil.
 Ships' compositions.
 Tar oil compounds.
 Varnishes
 “ oil.
 “ spirit.

7. Special conditions.**(a) Petroleum Spirit.**

- (i) In passenger ships engaged in short voyages and in coastal voyages a limited quantity of petroleum spirit in containers up to 5 gallons capacity may be carried on deck provided proper precautions are taken regarding stowage and keeping the packages away from passengers' promenade or deck space. Smoking and the use of naked lights in its vicinity must be prohibited, and notices to that effect prominently displayed near the place of stowage.
- (ii) The following precautions must be observed in ships other than those specially constructed for the carriage of petroleum spirit in bulk:—

Only iron or steel ships should be used. The bulkheads dividing the space or compartment allotted to this cargo from any other space should be gas-tight and without openings, and where there are bilge sluices these should be sealed effectively and remain unopened while any petroleum spirit

†See also paragraph 7.

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is on board. The whole compartment (where it is possible to allot a separate hold for this class of cargo) should be as nearly as possible hermetically sealed. This is probably the safest way to carry this class of cargo, but where the petroleum spirit is only a proportion of the total cargo in a hold efficient ventilators must be provided, half of which should extend to the bottom of the space and the other half should be practically flush with the deck. The short ventilators should be labelled "Outlet" or "to Leeward" and the long, "Inlet" or "to Windward." These ventilators should have large cowl heads, the openings being covered with double fine brass wire gauze.

- (b) *Bisulphide of carbon or Carbon disulphide*, is a clear mobile liquid heavier than water with which it does not mix. It is very volatile, the vapour will escape through a very small opening, and both the vapour and the liquid will take fire at a very low temperature. Mixtures of the vapour with air or oxygen are explosive within a much wider range than in the case of petroleum spirit vapour.

It must be contained in strongly made and perfectly tight drums tested by hydraulic pressure to at least 20 lb. per square inch for temperate climates and 40 lb. per square inch for tropical climates. An air space of $7\frac{1}{2}$ per cent for temperate climates and 10 per cent for tropical climates must be left in each drum for thermal expansion. The gross weight of any drum must not exceed 2 cwt. Each drum must be marked as laid down in paragraph 4, page 32.

This substance may not be carried in passenger ships as defined in Part I or in ships carrying explosives. In other ships it may be carried on deck only, protected from the rays of the sun, lights and sparks, and stowed away from all other goods and at a distance from all sources of artificial heat, such as steam pipes, fittings, etc., and at a distance from hatchways or other deck openings, and from all living quarters. Smoking in its vicinity must be strictly prohibited. The quantity carried must be restricted in accordance with the stowage requirements set out under (B) on page 32.

The drums should be examined at least twice in every 24 hours, and if any leakage or odour is detected, they should be immediately thrown overboard. Leakage may exist without any liquid being visible.

- (c) *Ether (sulphuric)* is a colourless transparent mobile liquid lighter than water. It is slightly soluble in water, very volatile and highly inflammable; mixtures of its vapour with air or oxygen are explosive within a much wider range than in the case of petroleum spirit vapour.

If carried in steel drums the drums must be tested by hydraulic pressure to at least 20 lb. per square inch for temperate climates and 40 lb. per square inch for tropical climates. An air space of

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7½ per cent for temperate climates and 10 per cent for tropical climates must be left in each container for thermal expansion. The gross weight of any drum must not exceed 2 cwt. Each drum must be marked as laid down in paragraph 4, page 32.

This substance may be stowed on deck only and the quantity carried must be restricted in accordance with the stowage requirements set out under (B) on page 32. Smoking and the use of naked lights in the vicinity of this substance must be strictly prohibited.

It may be carried in passenger* ships as defined in Part I only in small hermetically sealed tins or glass or earthenware containers, not exceeding one gallon capacity, packed with suitable absorbent material such as sawdust or thick corrugated paper in cases with not more than 16 gallons in a case. The small tins may be packed in card boxes instead of with corrugated paper.

- (d) *Nickel carbonyl*.—This substance is a colourless inflammable liquid which is also highly poisonous.

It must be packed in iron or steel cylinders similar to those used for compressed gases (see Section 2) with a space of at least 10 per cent to be filled with carbon monoxide or inert gas.

These cylinders may be carried in cargo ships only. They must be stowed at least 8 feet from the ship's side under cover in cool, well-ventilated spaces away from inflammable cargo and living quarters and not overstowed. They may not be stowed on deck unless they can be adequately secured and protected against the risk of damage in heavy weather and protected also from the direct rays of the sun.

Small quantities may be shipped in strong glass bottles, stoppered and luted, packed with infusorial earth or other suitable absorbent in hermetically sealed tins and the tins packed in strong wooden cases provided that

- (i) the amount of nickel carbonyl in each case does not exceed 10 lb.;
- (ii) the quantity in each bottle does not exceed 1 lb.; and
- (iii) a space of 10 per cent to be filled with carbon monoxide or inert gas is left in each bottle.

These cases may be carried only in cargo ships, on deck, protected from the direct rays of the sun. Every package must be marked as laid down in paragraph 4, page 32, and, in addition, with label D (the poison label).

- (e) *Cellulose enamels and lacquers*.—These usually consist of compounds in solution or in suspension mainly with alcohols or alcohol derivatives. They may be packed in small hermetically sealed tins, tubes, glass or earthenware containers up to one gallon capacity, packed with a suitable absorbent material such as sawdust or thick corrugated paper in strong cases with not more than 16 gallons in a case, or in sealed metal containers up to 5 gallons capacity packed in crates or cases with not more than 10 gallons in each crate or case, an air space of not less than 10 per cent being left in each container. Every package must be marked as laid down in paragraph 4, page 32.

* In emigrant ships' limited quantities may be carried by permission of the Emigration Officer.

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The small tins, tubes, etc., may be carried on or under deck in cargo ships and on deck in passenger ships as defined in Part I, and emigrant ships. Containers of larger capacity than 1 gallon may be carried on or under deck in cargo ships and, provided they are packed in crates or cases with a suitable absorbent material, on deck in passenger* ships in limited quantities.

- (f) *Pastes and semi-solids* (e.g. boot polishes, india rubber solution, etc.) having a flash point of 73° F. (22·8° C.) to 150° F. (65·6° C.) may be packed in tins with tight fitting lids or in tubes, each containing only a few ounces, packed in cases; or other equally satisfactory methods of packing may be used. Each package must be marked as laid down in paragraph 4, page 32.

These substances may be carried on or under deck in cargo ships and, in limited quantities, on deck in passenger* ships as defined in Part I.

- (g) *Potable spirits* may be carried in strong water-tight wooden casks in any ship.

SECTION 5.—CORROSIVE SUBSTANCES

1. General.—This Section includes substances which by their corrosive nature may be a source of danger to the ship, to the men handling them, or to adjacent cargo. Included in the Section are the powerful acids (nitric, hydrochloric, sulphuric, etc.) and substances such as caustic soda and antimony chloride.

Special care should be taken not to breathe the fumes from any of the fuming acids, particularly those from hydrofluoric and nitric acids, which are very dangerous.

2. Packing.—All substances in this Section except hydrofluoric acid and ammonium fluoride may be carried in glass or earthenware containers securely closed and packed with, in the case of liquids, suitable effective absorbent or insulating material the nature of which will depend on the properties of the substance.

Under the conditions specified in the appended table certain acids may be carried in sound iron, steel, lead-lined or aluminium-lined drums. Certain of the weaker acids and the caustic alkalies may also be packed in sound watertight wooden casks. The caustic alkalies may also be carried in iron or steel drums.

All containers should be so constructed and closed as to prevent leakage. In the case of liquids an adequate space must be allowed for thermal expansion; the minimum space required is stated against each substance in the table.

Where no limit of weight is specified there is no restriction on the weight of packages.

Special requirements and modifications are indicated in the table.

3. Stowage.—All substances in this Section should be stowed suitably distant from foodstuffs and living quarters. As they are corrosive they are liable to attack materials with which they come into contact.

* In emigrant ships, limited quantities may be carried by permission of the Emigration Officer.

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SECTION 5.—CORROSIVE SUBSTANCES

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Acetic acid, (a) glacial and over 90% strength.	Concentrated form, corrosive to the skin.	(A) Glass or earthenware containers packed in cases with a suitable absorbent material.	10%	.....	.....	(A) On or under deck.	(A) *Allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than $\frac{1}{4}$ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be contained in a close fitting case, crate or hamper.	10%	.....	.....	(B) On or under deck.	(B) *Allowed
		(C) Aluminium-lined iron, aluminium-lined steel, or suitably protected aluminium drums.	10%	.....	100 gal.	(C) On or under deck.	(C) *Allowed
		(D) Sound, watertight, wax-lined wooden barrels.	10%	.....	50 gal.	(D) On or under deck.	(D) Allowed
Acetic acid (cont.) (b) strength 80% to 90%	Corrosive liquid	(A) Glass or earthenware containers packed in cases with a suitable absorbent material.	10%	.....	.....	(A) On or under deck.	(A) Allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than $\frac{1}{4}$ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be contained in a close fitting case, crate or hamper.	10%	.....	.....	(B) On or under deck.	(B) Allowed
		(C) Aluminium-lined iron, aluminium-lined steel, or suitably protected aluminium drums.	10%	.....	100 gal.	(C) On or under deck.	(C) Allowed
		(D) Sound, watertight, wax-lined wooden barrels.	10%	.....	50 gal.	(D) On or under deck.	(D) Allowed
		(E) Sound, watertight, wooden barrels.	10%	.....	50 gal.	(E) On or under deck.	(E) Allowed

* Allowed in emigrant ships only by permission of the Emigration Officer.

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SECTION 5.—CORROSIVE SUBSTANCES—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Ammonium fluoride.	Solid. In the presence of moist air is liable to become corrosive.	Lead-lined or lead-coated drums, or strong, watertight, wooden casks.	.....	.....	.....	In a dry place away from strong acids. On or under deck.	*Allowed.
Antimony chloride.	Corrosive and poisonous liquid; decomposed by water with the formation of hydrochloric acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	5%	.....	10 gal.	(A) On deck only.	(A) *Allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be placed in a close fitting case, crate or hamper.	5%	2 cwt.	.....	(B) On deck only.	(B) Not allowed.
Caustic potash.	Solid potassium hydroxide; very corrosive; generates heat in contact with water.	Sound iron or steel drums	.....	.....	.....	Away from all acids. On or under deck but not in the same compartment as explosives.	Allowed.
Caustic soda.	Solid sodium hydroxide; very corrosive; generates heat in contact with water.	Sound iron or steel drums	.....	.....	.....	Away from all acids. On or under deck but not in the same compartment as explosives.	Allowed.
Chromic acid	Poisonous and corrosive; may cause fire in contact with combustible substances.	(A) Glass or earthenware containers in cases with sand or earthy material. Sawdust or other organic substance is not allowed.	10%	.....	.....	(A) Away from combustible substances. On deck only.	(A) *Allowed
		(B) Solid chromic acid may also be packed in lead-lined or lead-coated drums.	.....	.....	.....	(B) Away from combustible substances. On deck or under deck but not in the same compartment as explosives.	(B) *Allowed
Copper sulphate.	Solid, usually crystalline; in solution with water will corrode iron or steel; poisonous.	(A) Sound watertight wooden casks.	.....	.....	.....	(A) In a dry place and not in direct contact with the ship's side.	(A) Allowed
		(B) Strong bags for short voyages but special care must be taken to keep the bags dry.	.....	.....	2 cwt.	(B) As for (A).	(B) Allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—*continued*SECTION 5.—CORROSIVE SUBSTANCES—*Continued*

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Hydrobromic acid.	Very corrosive; strong fuming acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	5%	.....	10 gals.	(A) Away from sulphuric acid. On deck only.	(A) Not allowed.
		(B) Securely closed glass or earthenware containers packed singly in: 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be placed in a close fitting case, crate or hamper.	5%	2 cwt.	.....	(B) Away from sulphuric acid. On deck only.	(B) Not allowed.
Hydrochloric acid.	Very corrosive; strong fuming acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	5%	.....	10 gals.	(A) On deck only.	(A) Not allowed.
		(B) Securely closed glass or earthenware containers packed singly in: 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper, the whole to be placed in a close fitting case, crate or hamper.	5%	2 cwt.	.....	(B) On deck only.	(B) Not allowed.
Hydrofluoric acid.	Very corrosive; strong fuming acid; attacks most metals and also glass, earthenware, and other siliceous materials.	(A) Thoroughly sound leaden bottles securely closed, containing not more than 80 lb. of acid, luted and tied over, and carefully packed with straw, sawdust, woodwool, or other suitable absorbent material in wooden cases; or sound gutta percha bottles securely stoppered, up to 1 gallon capacity, packed with whiting, straw, sawdust, woodwool or other suitable absorbent material in cases. Kieselguhr or other siliceous material is not allowed.	10%	3 cwt.	.....	(A) On deck only. In ships carrying explosives the engine and boiler spaces must intervene between the holds containing the explosives and the space over which this acid is stowed.	(A) Not allowed.

* Allowed in emigrant ships only by permission of the Emigration Officer.

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SECTION 5.—CORROSIVE SUBSTANCES—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Nitric acid	Very corrosive; strong fuming acid.	(B) Iron or steel drums rendered passive in a manner approved by the Administration.	10%	2 cwt.	.....	(B) As for (A).....	(B) Not allowed.
		(A) For acid of any strength, glass or earthenware containers up to 2½ gallons capacity packed in cases with Kieselguhr (infusorial earth) or other effective inorganic insulating material.	10%	.....	10 gal.	(A) On deck only.... Away from all other substances in this Section and combustiblesubstances must not be carried in any ship in which explosives are carried.	(A) Not allowed.
		(B) For acid of not less than 95% strength, and s.g. of not less than 1.5, strong aluminium-lined or suitably protected aluminium drums fitted with efficient screw plugs.	10%	.....	2 cwt.	(B) As for (A).....	(B) Not allowed
		(C) For acid of not less than 50% strength and s.g. of not less than 1.32, drums made from a suitable acid-resisting steel.	10%	.....	2 cwt.	(C) As for (A).....	(C) Not allowed
Nitric acid and sulphuric acid mixtures. (Mixed acids).		(A) Glass or earthenware containers up to 2½ gallons capacity packed in cases with Kieselguhr (infusorial earth), or other effective inorganic insulating material.	10%	.....	10 gal.	(A) On deck only.... Away from all other substances in this Section and combustiblesubstances. Must not be carried in any ship in which explosives are carried.	(A) Not allowed.
		(B) Iron or steel drums provided that the mixed acids have not more than 15% water in their composition.	10%	2 cwt.	.....	(B) As for (A).....	(B) Not allowed
Phosphoric acid. (a) specific gravity 1.2 and over.	Mildly corrosive	(A) Glass or earthenware containers packed in cases with a suitable absorbent material.	5%	.....	.....	(A) On or under deck.	(A) *Allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be contained in a close fitting case, crate or hamper.	5%	.....	.....	(B) On or under deck.	(B) *Allowed
		(C) Specially approved lead-lined wooden cases.	5%	.....	.....	(C) On or under deck.	(C) *Allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 5.—CORROSIVE SUBSTANCES—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
(b) specific gravity lower than 1.2.		Lead, glass or earthenware containers suitably protected, without restriction.	5%	.....	.....	On or under deck.	Allowed.
Sodium bisulphite solution.	Corrosive, with a pungent smell.	(A) Watertight wooden casks.	10%	.....	.....	(A) Away from acids. On or under deck.	(A) Allowed
		(B) Small quantities may be carried in glass or earthenware containers packed with sawdust or other effective absorbent material in wooden cases.	10%	.....	.....	(B) As for (A).	(B) Allowed
Sodium metabisulphite.	Solid, which becomes mildly corrosive when wet.	Hermetically sealed steel drums or watertight wooden casks.	.....	.....	.....	Away from acids. On or under deck.	Allowed
Sulphur monochloride.	Fuming corrosive liquid; decomposed by water with the formation of hydrochloric acid.	(A) Strong hermetically sealed iron or steel drums.	10%	.....	50 gals.	(A) On or under deck, but not in the same compartment as explosives. If on deck the gross weight of each drum must not exceed 2 cwt.	(A) Not allowed
		(B) Small quantities may be carried in glass or earthenware containers packed with sawdust or other effective absorbent material in wooden cases.	10%	3 cwt.	.....	(B) On deck only.	(B) *Allowed
Sulphuric acid (not including Oleum or Nordhausen).	Very corrosive, generates heat when mixed with water. Oleum and Nordhausen are fuming acids.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	5%	.....	10 gals.	(A) On deck only; in ships carrying explosives the engine and boiler room spaces must intervene between the hold in which the explosives are carried and the space over which sulphuric acid is stowed.	(A) Not allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be placed in a close fitting case, crate or hamper.	5%	2 cwt.	.....	(B) On deck only.	(B) Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 5.—CORROSIVE SUBSTANCES—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Sulphuric acid (cont'd).		(C) Specially approved steel drums for sulphuric acid of specific gravity not less than 1.84.	5%	.....	14 cwt.	(C) On or under deck. If on deck, the gross weight of the drums must not exceed 2 cwt. If under deck, the drums must be effectively embedded in layers of slack coal of a kind not liable to spontaneous combustion. The bottom layer of coal should be not less than 1 foot thick for drums up to 10 cwt. and 2 feet thick for drums over 10 and up to 14 cwt. Not more than 4 tiers of drums may be stowed in this way. Any coal that has been wetted with sulphuric acid should be removed forthwith and should not afterwards be used.	(C) Not allowed
Oleum or Nordhausen		(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	5%	.....	10 gal.	(A) As for sulphuric acid (A).	(A) Not allowed
		(B) Specially approved steel drums for sulphuric acid of specific gravity not less than 1.84.	5%	.....	14 cwt.	(B) As for sulphuric acid (C).	(B) Not allowed
Sulphurous acid.	Irritating and suffocating.	(A) Sound watertight wooden casks.	5%	.....	.....	(A) Preferably on deck, but if under deck, in a well-ventilated space.	(A) *Allowed
		(B) Small quantities may be carried in glass or earthenware containers packed with sawdust or other effective absorbent material in wooden cases.	5%	.....	.....	(B) On or under deck.	(B) Allowed
Sulphuryl chloride.	Fuming corrosive liquid; decomposed by water with the formation of both hydrochloric and sulphuric acids	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	10%	.....	10 gals.	(A) On deck only.	(A) *Allowed
		(B) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or	10%	.....	2 cwt.	(B) On deck only.	(B) Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 5.—CORROSIVE SUBSTANCES—Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label C.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Sulphuryl chloride (cont'd).		3. strong iron hampers with iron bonnets, with not less than $\frac{1}{2}$ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be placed in a close fitting case, crate or hamper.					
		(C) Strong hermetically sealed iron or steel drums.	10%	2 cwt.	.....	(C) On deck only.	(C) Not allowed
Thionyl chloride.	Corrosive liquid with a pungent smell; decomposed by water into hydrochloric acid and sulphurous acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	10%	.....	10 gals.	(A) On deck only.	(A) *Allowed
		(B) Securely closed glass or earthenware containers packed singly in	10%	2 cwt.	.....	(B) On deck only.	(B) Not allowed
		1. wicker hampers with wicker bonnets, or					
		2. stout slatted crates lined with stout corrugated paper, and with adequate protection for the neck of the container, or					
		3. strong iron hampers with iron bonnets, with not less than $\frac{1}{2}$ inch of straw packing or other suitable insulating material between the container and the hamper; the whole to be placed in a close fitting case, crate or hamper.					
		(C) Iron or steel drums, lead-lined.	10%	2 cwt.	.....	(C) On deck only....	(C) Not allowed
Tin tetrachloride (Anhydrous)	Fuming corrosive liquid; decomposed by water with the formation of hydrochloric acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	10%	.....	5 gals.	(A) On deck only....	(A) *Allowed
Stannic chloride (Anhydrous)		(B) Strong steel drums.	10%	2 cwt.	.....	(B) On deck only....	(B) Not allowed
Titanium tetrachloride.	Fuming corrosive liquid; decomposed by water with the formation of hydrochloric acid.	(A) Glass or earthenware containers up to 2½ gallons capacity, packed in cases with whiting or other effective absorbent material.	10%	.....	10 gals.	(A) On deck only....	(A) *Allowed
		(B) Strong steel drums.	10%	2 cwt.	.....	(B) On deck only....	(B) Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 6—POISONOUS SUBSTANCES

1. General.—This Section includes substances which are dangerous by reason of the poisonous or deleterious effect which they have on human beings when they find their way into the body either by being breathed, by being taken through the mouth, or by absorption through the skin. This Section does not include substances classed as corrosive, which are included in Section 5, though some of the substances enumerated below possess corrosive as well as poisonous properties.

The Section is divided into two groups—(A) substances which give off a poisonous gas or vapour, and (B) other poisonous substances. With substances in group (A), which are generally liquids, danger arises primarily from breathing the gas or vapour; substances in group (B) become dangerous when taken through the mouth and may be either liquids or solids. Certain substances in both groups are also dangerous through absorption through the skin. In general the precautions required will be similar for the two groups.

2. Packing.—The main precautions required are such as to ensure that the containers are of substantial construction and sealed or so packed that they will withstand the normal rough usage incidental to transport without leakage or the escape of vapour.

The substances in this Section may be packed in steel drums, casks or barrels, or glass, earthenware, or tin containers packed in cases. Certain substances in group (B) may also be packed in hardwood casks. For liquids in glass, earthenware, or tin containers packed in cases, an absorbent packing material on which the liquids have no harmful action should be used in sufficient quantity to ensure complete absorption of the contents in the event of breakage or leakage.

All containers require to be effectively sealed. In the case of liquids an adequate space must be allowed for thermal expansion. The minimum space required is shown in the table against each substance.

Where no limit of weight is specified in the table there is no restriction on the weight of packages.

Attention is drawn to the provisions in Section 7 for chemicals and medicinal preparations in limited quantities in mixed consignments.

3. Stowage.—Substances in this Section should be stowed away from living quarters and in such a manner as to avoid all risk of contaminating foodstuffs and other cargo. For liquids stowage in a cool, well-ventilated place is generally desirable to prevent generation of pressure in the containers from thermal action and accumulation of dangerous vapour; if carried on deck, they should be protected from the direct rays of the sun. Unless otherwise specified, all substances may be carried on or under deck. Any special conditions are shown in the table.

Canada Shipping Act—continued

SECTION 6.—GROUP A—SUBSTANCES WHICH GIVE OFF A POISONOUS GAS OR VAPOUR—

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Ammonia† Aqueous solutions.	Liquid with pungent odour. Its vapour is a dangerous irritant but its presence can be detected in small quantities without danger. Corrodes copper and copper compounds such as brass but has no effect on iron or steel.						
(a) specific gravity .959 or over.		No special precautions.	10%			No special precautions	Allowed
(b) specific gravity .892 to .958.		(A) Steel drums or steel casks, hydraulically tested to 20 lb. per square inch for temperate and 40 lb. per square inch for tropical climates, at which pressures they should show no sign of rupture or leakage. (B) Sealed glass or earthenware containers not exceeding $\frac{1}{2}$ gallon capacity, packed with sawdust in strong cases.	10%		100 gals.	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun or under deck in a cool, well ventilated place. (B) No special precautions.	(A) *Allowed (B) Allowed
(c) specific gravity .880 to .891.		(A) Steel drums or steel casks hydraulically tested to 40 lb. per square inch for temperate and 66 lb. per square inch for tropical climates, at which pressures they should show no sign of rupture or leakage. (B) Sealed glass or earthenware containers not exceeding $\frac{1}{2}$ gallon capacity, packed with sawdust in strong cases.	10%		100 gals.	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place. (B) No special precautions.	(A) *Allowed (B) Allowed
Aniline oil.	Liquid giving off poisonous vapour; will stain surrounding goods.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gal. capacity, packed in cases with sawdust, corrugated paper or other effective insulating material. (B) Drums or casks of iron or steel.	5%			(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place. (B) As for (A).	(A) *Allowed on deck only. (B) *Allowed
Bromine.	Liquid; powerful irritant poison which gives off fumes extremely irritating to the respiratory organs and eyes; corrosive.	Glass or earthenware containers securely stoppered, containing not more than $\frac{1}{2}$ gallon, packed in a substantial wooden case each container completely surrounded by Kieselguhr (infusorial earth).	15%	2 cwt.		Away from living quarters and all other cargo. On deck only, protected from the rays of the sun.	Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

† Anhydrous Ammonia will be found in Section 2, (Compressed, Liquefied and Dissolved Gases).

Canada Shipping Act—continued

SECTION 6.—GROUP A—SUBSTANCES WHICH GIVE OFF A POISONOUS GAS OR VAPOUR—
Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Carbon tetrachloride.	Liquid, the vapour of which has anaesthetic properties.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	10%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
Chloroform.	Liquid giving off anaesthetic vapour not easily inflammable.	(B) Drums or casks of iron or steel.	10%	.....	100 gals.	(B) As for (A).	(B) *Allowed
		(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	10%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
		(B) Drums or casks of iron or steel.	10%	.....	100 gals.	(B) As for (A).	(B) *Allowed
		(C) Securely closed glass or earthenware containers packed singly in 1. wicker hampers with wicker bonnets, or 2. stout slatted crates lined with stout corrugated paper and with adequate protection for the neck of the container, or 3. strong iron hampers with iron bonnets, with not less than $\frac{1}{2}$ inch of straw packing — or other suitable insulating material between the container and the hamper; the whole to be contained in a close fitting case, crate or hamper.	10%	.....	.....	(C) On deck only.	(C) *Allowed on deck only.
Dichlorethylene.	Liquid giving off mildly poisonous vapour.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	10%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well ventilated place.	(A) *Allowed on deck only.
Ethane tetrachloride.	Liquid giving off mildly poisonous vapour.	(B) Drums or casks of iron or steel.	10%	.....	100 gals.	(B) As for (A).....	(B) *Allowed
		(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	10%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
Ethyl fluid.	Toxic volatile liquid. Danger is to be apprehended by absorption of the liquid through the skin and by inhalation of its vapour.	(B) Drums or casks of iron or steel.	10%	.....	100 gals.	(B) As for (A).....	(B) *Allowed
		(A) Stoppered and luted glass bottles, containing not more than 1 quart, packed with sawdust in tins in cases.	10%	2 cwt.	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed
		(B) Drums or casks of iron or steel.	10%	.....	50 gals.	(B) As for (A).....	(B) Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

†Sulphuric, oxalic, and acetic acids, and other acid substances have been used.

Canada Shipping Act—continued

SECTION 6.—GROUP A—SUBSTANCES WHICH GIVE OFF A POISONOUS GAS OR VAPOUR—
Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Hydrocyanic acid (anhydrous prussic acid).	Liquid with low boiling point (26°C.); both the liquid and its vapours are intensely poisonous; it has an odour of bitter almonds not easily perceptible to many persons. Even in a diluted state the vapour causes paralysis of respiration and the spinal cord and deep insensibility. The danger is increased by the imperceptibility of the gas, so that it is most desirable that a warning agent be incorporated with the gas. Pure concentrated hydrocyanic acid is stable, but decomposes and polymerises under the influence of alkali and iron. The effect of the alkali and iron may be removed by a slight addition (0.1%) of concentrated sulphuric acid, so that the storage of concentrated hydrocyanic acid (98% and over) with 0.1% of sulphuric acid in steel bottles and tinplate canisters may be regarded as being free from danger. Where the acid is absorbed in a porous material the material used must not be alkaline nor be otherwise basic. In the latter case it is advisable to neutralize it with acid previously, so that the esti-	The carriage by sea of unstabilized anhydrous hydrocyanic acid is prohibited. In all cases the hydrocyanic acid must be effectively stabilized by the addition of a sufficient quantity of efficient stabilizer.† The particular acid or acid ester used must be approved by the Administration. Shippers must furnish a certificate specifying the stabilizer and quantity used (for the confidential information of the Administration) and certifying that the substance has not been in the receptacles for longer than six months.					
		(A) Seamless steel cylinders (see Section 2).					
		(B) Absorbed in a suitable porous material and contained in stout hermetically sealed tin containers protected with stout corrugated paper, packed in wooden cases, not more than 2½ lb. of hydrocyanic acid in each container and 36 lb. in a case.	.....	36 lb.	(B) Away from food-stuffs and living quarters. On deck only, protected from the direct rays of the sun or sources of artificial heat, and in a place (e.g., docking bridge) not easily accessible to any person.	(B) Not allowed	
		(C) Glass bottles effectively sealed, of a capacity not exceeding 1 lb. of liquid, made from glass as free as possible from surface alkali, wrapped in straw, and packed in tin cases with sufficient slaked lime to neutralize the whole of the contents of the bottles in the event of breakage. There must not be more than 20 lb. of liquid in each case.	10%	.....	20 lb.	(C) As for (B).	(C) Not allowed

Canada Shipping Act—continued

SECTION 6.—GROUP A—SUBSTANCES WHICH GIVE OFF A POISONOUS GAS OR VAPOUR—
Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Lead tetra-ethyl.	Toxic volatile liquid. Danger is to be apprehended by absorption of the liquid through the skin and by inhalation of its vapours.	(A) Stoppered and luted glass bottles, containing not more than 1 quart, packed with sawdust in tins in cases.	10%	2 cwt.	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed
		(B) Drums or casks of iron or steel.	10%	.....	50 gals.	(B) As for (A).	(B) Not allowed
Nitrobenzol (mirbane oil).	Liquid giving off inflammable vapour.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	5%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
		(B) Drums or casks of iron or steel.	5%	.....	100 gals.	(B) As for (A).	(B) *Allowed
Pentachlorethane.	Liquid evolving mildly poisonous vapour.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	5%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
		(B) Drums or casks of iron or steel.	5%	.....	100 gals.	(B) As for (A).	(B) *Allowed
Perchlor-ethylene.	Liquid evolving mildly poisonous vapour.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	5%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
		(B) Drums or casks of iron or steel.	5%	.....	100 gals.	(B) As for (A).	(B) *Allowed
Trichlorethylene.	Liquid evolving mildly poisonous vapour.	(A) Glass, earthenware or tin containers up to $\frac{1}{2}$ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	5%	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) *Allowed on deck only.
		(B) Drums or casks of iron or steel.	5%	100 gals.	(B) As for (A).	(B) *Allowed

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Canada Shipping Act—continued

SECTION 6.—GROUP B—OTHER POISONOUS SUBSTANCES

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Aniline salt.	Solid.	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	.....	.....	.....	(A) Away from food-stuffs, living quarters and alkalies. On or under deck.	(A) Allowed
		(B) Iron or steel drums or casks, or sound hardwood casks, or, if the salt is dry, paper-lined casks or cases.	.....	.....	.....	(B) As for (A).	(B) Allowed
Antimony compounds and preparations thereof.	Solid or liquid.	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5% if liquid	.....	.....	(A) Away from food-stuffs and living quarters. On deck (if liquid, protected from the rays of the sun), or under deck.	(A) Allowed
		(B) Iron or steel drums or casks, or sound hardwood casks or, if the salt is dry, paper-lined casks or cases.	5% if liquid	.....	.....	(B) As for (A).	(B) Allowed
Arsenic compounds, and preparations thereof.	Solid, fine powder, or liquid. Care should be taken not to breathe air laden with the fine powder.	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5% if liquid	.....	.....	(A) Away from food-stuffs and living quarters. On deck (if liquid, protected from the rays of the sun), or under deck.	(A) Allowed
		(B) Iron or steel drums or casks (lined with lead or otherwise suitably protected in the case of Arsenic acid) or, if the product is dry, paper-lined casks or cases.	5% if liquid	.....	.....	(B) As for (A).....	(B) Allowed
Barium compounds of (excluding barium sulphate which is not a dangerous substance).	Solid.....	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	.....	.....	.....	(A) Away from food-stuffs and living quarters. On or under deck.	(A) Allowed
		(B) Paper-lined casks or cases.	.....	.....	.....	(B) As for (A).....	(B) Allowed
Barium oxide	Solid.....	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	.....	.....	.....	(A) Away from food-stuffs and living quarters. Under deck only.	(A) Allowed
		(B) Drums or casks of iron or steel.	.....	.....	.....	(B) As for (A).....	(B) Allowed
Carbolic acid (phenol) and liquid preparations thereof, and its homologues, e.g., cresylic and other tar acids.	Solid or liquid; corrosive to the skin.	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5% if liquid	.....	.....	(A) Away from food-stuffs and living quarters. On deck (if liquid, protected from the rays of the sun), or under deck.	(A) *Allowed
		(B) Drums or casks of iron or steel or sound hardwood casks.	5% if liquid	.....	.....	(B) As for (A).....	(B) *Allowed except in hardwood casks.
Dinitrobenzol.	Solid.....	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	(A) Away from food-stuffs, living quarters, and explosives. On deck (if liquid, protected from the rays of the sun), or under deck in a cool, well-ventilated place.	(A) *Allowed

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Canada Shipping Act—continued

SECTION 6.—GROUP B—OTHER POISONOUS SUBSTANCES—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
		(B) Iron or steel drums or casks or, provided the substance will remain solid at any temperature likely to be met with under all conditions of transport, paper-lined casks or cases.	.....	.....	.....	(B) As for (A).....	(B) *Allowed
Dinitrotoluol.	Solid or liquid..	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5% if liquid	.....	.....	(A) Away from food-stuffs, living quarters and explosives. On deck, or under deck in a cool, well-ventilated place.	(A) *Allowed
		(B) Iron or steel drums or casks or, provided the substance will remain solid at any temperature likely to be met with under all conditions of transport, paper-lined casks or cases.	.....	.....	.....	(B) As for (A).	(B) *Allowed
Disinfectant fluids.	Liquids.	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck.	(A) *Allowed
		(B) Iron or steel drums or casks, or sound hardwood casks.	5%	.....	.....	(B) As for (A).	(B) *Allowed
Lye intermediates. Metaphenylenediamine Metatoluylenediamine Orthonitrotoluol. Orthotoluidine. Paranitrophenol. Paranitrotoluol. Xylidine.	Solids or liquids	(A) Glass, earthenware or tin containers packed in cases with suitable insulating material.	5% if liquid	.....	.....	(A) Away from food-stuffs, living quarters and explosives. On deck, or under deck in a cool place.	(A) *Allowed
		(B) Iron or steel drums or casks or, provided the substance will remain solid at any temperature likely to be met with under all conditions of transport, paper-lined casks or cases.	5% if liquid	.....	.....	(B) As for (A).	(B) *Allowed
Mercuric chloride.	Solid or fine powder; care should be taken not to breathe the air laden with the fine powder.	(A) Glass, earthenware or paper-lined tin containers packed in cases with suitable insulating material.	.....	.....	.....	(A) Away from food-stuffs and living quarters. On or under deck.	(A) *Allowed
		(B) Iron or steel drums or sound hardwood casks.	.....	.....	.....	(B) As for (A).	(B) *Allowed
Nicotine.	Liquid.	(A) Glass, earthenware or tin containers, up to ½ gallon capacity, packed in cases with sawdust, corrugated paper or other effective insulating material.	5%	.....	.....	(A) Away from food-stuffs and living quarters. On deck protected from the rays of the sun, or under deck in a cool, well-ventilated place.	(A) Allowed
		(B) Iron or steel drums or casks.	5%	.....	.....	(B) As for (A).	(B) Allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 6.—GROUP B—OTHER POISONOUS SUBSTANCES—Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Minimum air space to be allowed	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
				Gross	Net		
Oxalic acid and oxal- ates.	Solid.	(A) Glass or earthen-ware containers or, if perfectly dry, in tin containers, packed in cases with suitable insulating material.	.....	.....	.....	(A) Away from foodstuffs and living quarters. On or under deck.	(A) Allowed
		(B) Sound wooden barrels or, if perfectly dry, in iron or steel drums.	.....	.....	.....	(B) As for (A), but if in wooden barrels under deck only.	(B) Allowed
Potassium cyanide, Sodium cyanide, and other poisonous cyanides and pre- parations thereof.	Very poisonous solids which may be absorbed through the skin with fatal results. In the presence of moisture and carbonic acid they decompose and give rise to the poisonous hydro-cyanic acid gas; even exposure in ordinary air will in time lead to this result.	(A) Tin or zinc cases enclosed in strong iron bound wooden cases.	.....	250 lb.	.....	(A) Away from acids, foodstuffs and living quarters. On or under deck.	(A) *Allowed
		(B) Drums or casks of iron or steel.	.....	250 lb.	.....	(B) As for (A).....	(B) *Allowed
Sheep dips.	Liquids, pastes, or solids containing the poisons arsenic or nicotine. (Sheep dips made from coal tar oils and not containing arsenic or nicotine should be considered as coming under disinfectant fluids.)	Strongly constructed containers of substantial material, effectively sealed so as to prevent any escape of the contents.	5% if liquid	Away from foodstuffs and living quarters. On deck (if liquid, protected from the rays of the sun), or under deck in a cool, well-ventilated place.	*Allowed

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SECTION 7.—MISCELLANEOUS

1. This Section comprises such substances as do not, by the nature of their properties, come properly within the foregoing Sections. Most of them fall, however, into one or other of the following three groups:—

- (A) Substances which, while not themselves combustible, may liberate oxygen or other gas having similar properties, and thus augment the rapidity and violence of a fire, i.e., strong supporters of combustion;
- (B) Substances liable to spontaneous combustion under certain conditions of stowage;
- (C) Readily combustible solids.

Canada Shipping Act—continued

2. It will be found in a few instances that substances possess in some degree properties classified in one or other of the previous Sections. For instance, barium nitrate and barium chlorate are poisonous but their main characteristic, that of intensifying and supporting combustion, renders their inclusion among the poisons unsuitable.

3. Since the properties of the substances in this Section vary widely, it is impossible to prescribe any general form of packing or method of stowage and, therefor, these requirements are given in the table against each substance. Substances in group (A) may be carried on or under deck but, as they are all soluble in water, it is clearly inadvisable to carry them on deck unless they are packed in water-tight containers. They should of course be stowed away from all combustible materials, strong acids and explosives, and, if poisonous, away from foodstuffs.

4. Where no limit of weight is specified in the table there is no restriction on the weight of packages.

SECTION 7—GROUP A—STRONG SUPPORTERS OF COMBUSTION

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Bichromates.	Will render organic substances easily inflammable. Strong acids have a very violent action on substances impregnated with these compounds. Also poisonous.					
Ammonium bichromate.	Solid. More easily decomposed by heat than other bichromates.	Iron or steel drums, paper-lined casks or cases of sufficient strength to prevent any escape of the contents.	.....		Away from all combustible materials, strong acids, explosives and foodstuffs. On deck or under deck in a cool place.	*Allowed
Potassium bichromate.	Solid.....	Casks or cases of sufficient strength to prevent any escape of the contents—paper-lined if the substance is granular or ground.	.....		Away from all combustible materials, strong acids, explosives and foodstuffs. On or under deck.	*Allowed
Sodium bichromate.	Solid.....	Paper-lined casks or cases of sufficient strength to prevent any escape of the contents.	.....		Away from all combustible materials, strong acids, explosives and foodstuffs. On or under deck.	*Allowed
Bromates...	Similar to the chlorates, but less dangerous.					
Potassium bromate.	Solid.....	Iron or steel drums, small paper-lined kegs, or stout paper bags in cases of sufficient strength to prevent any escape of the contents.	.....		Away from all combustible materials, strong acids, explosives and living quarters. On or under deck.	Not allowed.

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP A—STRONG SUPPORTERS OF COMBUSTION—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Chlorates...	Some mixtures with combustible substances, specially with sulphur, are liable to spontaneous combustion, and all such mixtures are sensitive to percussion especially when combined with friction. Moreover, strong acids have a very violent action on these substances and many mixtures of combustible substances and chlorates are set on fire if acted on by strong sulphuric acid.					
Potassium chlorate and Sodium chlorate.	Solids.....	Iron or steel drums or casks, small paper-lined kegs, or stout paper bags in cases of sufficient strength to prevent any escape of the contents.	.....	.....	Away from all combustible materials, strong acids, explosives and living quarters. On or under deck. Not more than 10 tons may be carried in one hold. If, however, a compartment in a cool part of the ship is reserved for this substance and such compartment is thoroughly cleaned of all foreign matter, grit, dust, etc., and the packages stowed in such a manner that there will be no friction, the limit of 10 tons in any one hold may be exceeded if authorized by the Administration.	Not allowed
Barium chlorate.	Solid. Is also poisonous.	Iron or steel drums or casks, small paper-lined kegs, or stout paper bags in cases of sufficient strength to prevent any escape of the contents.	.....	.....	Away from all combustible materials, strong acids, explosives, food-stuffs and living quarters. On or under deck. Not more than 10 tons may be carried in one hold. If, however, a compartment in a cool part of the ship is reserved for this substance and such compartment is thoroughly cleaned of all foreign matter, grit, dust, etc., and the packages stowed in such a manner that there will be no friction, the limit of 10 tons in any one hold may be exceeded if authorized by the Administration.	Not allowed
Calcium chlorate solution.	The solid is very hygroscopic and this substance is therefore usually carried as a solution; but if dried its properties would be the same as for potassium and sodium chlorates.	An air space of 5% must be left in all containers. Iron or steel containers so closed as to prevent leakage.	.....	.....	Away from all combustible materials, strong acids and explosives. On deck or under deck in a cool place.	*Allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP A—STRONG SUPPORTERS OF COMBUSTION—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Nitrates....	Possess the general properties of this Group.					
Ammonium nitrate.	Solid.....	Iron or steel drums or casks, or strong, watertight, wooden casks.			Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Potassium nitrate (Salt-petre).	Solid.....	Sacks or other containers			Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Sodium nitrate (Chili salt-petre).	Solid.....	Sacks or other containers			Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Barium nitrate.	Solid. Is also poisonous.	Paper-lined casks or cases.			Away from all combustible materials, strong acids, explosives and foodstuffs. On or under deck.	*Allowed
Perborates.	Possess the general properties of this Group.					
Sodium perborate.	Solid.....	Iron or steel drums or casks, or sound, hardwood casks.			Away from all combustible materials, strong acids and explosives. On deck or under deck in a cool place.	*Allowed
Percarbonates.	Possess the general properties of this Group.					
Sodium percarbonate.	Solid.....	Iron or steel drums or sound, hardwood casks.			Away from all combustible materials, strong acids and explosives. On deck or under deck in a cool place.	*Allowed
Perchlorates	Will render organic substances easily inflammable; sensitive to shock, but less dangerous than the chlorates.					
Ammonium perchlorate.	Solid.....	Iron or steel drums or casks, or paper-lined casks of sufficient strength to prevent any escape of the contents.			Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Potassium perchlorate.	Solid.....	Iron or steel drums or casks, or paper-lined casks of sufficient strength to prevent any escape of the contents.			Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Permanganates.	Mixed with combustible matter, are liable to ignition by friction and to spontaneous combustion if acted on by sulphuric acid.					

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP A—STRONG SUPPORTERS OF COMBUSTION—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Potassium permanganate.	Solid.....	Paper-lined casks or cases	.....	.....	Away from all combustible materials, strong acids and explosives. On or under deck.	*Allowed
Ammonium permanganate.	Solid..... Is more sensitive to shock than other permanganates.	Iron or steel drums or casks, small, paper-lined cases of sufficient strength to prevent any escape of the contents.	.....	.....	Away from all combustible materials, strong acids, explosives and living quarters. On deck or under deck in a cool place.	Not allowed
Barium permanganate.	Solid..... Is also poisonous.	Paper-lined casks or cases	.....	.....	Away from all combustible materials, strong acids, explosives and foodstuffs. On or under deck.	*Allowed
Peroxides...	Will cause spontaneous ignition of organic matter.					
Barium peroxide.	Solid..... Is also poisonous.	(A) Strong iron or steel drums or casks, effectively sealed.	.....	.....	(A) Away from all combustible materials, strong acids, explosives, foodstuffs and living quarters. On deck or under deck in a cool place.	(A) Not allowed
		(B) Tins up to 56 lb. packed in a case of sufficient strength to prevent any escape of the contents.	.....	2 cwt.	(B) As for (A).....	(B) *Allowed in small quantities
Sodium peroxide.	Solid..... Acts more violently if wetted.	(A) Strong iron or steel drums or casks, effectively sealed.	.....	.....	(A) Away from all combustible materials, strong acids, explosives, foodstuffs and living quarters. On deck or under deck in a cool place.	(A) Not allowed
		(B) Hermetically sealed tins up to 14 lb. packed in a tin-lined case enclosed in a strong outer case.	.....	2 cwt.	(B) As for (A).....	(B) *Allowed in small quantities
Hydrogen peroxide.	As used in commerce is a transparent colourless liquid. Its oxidizing properties are great and its rate of decomposition increases rapidly with a rise of temperature. Should a package break the hose should be immediately played upon it to prevent the liquid drying in its concentrated state on wood or any fibrous material	An air space of not less than 10% must be left in all containers.				
(a) Solutions of a strength guaranteed to be not greater than 6%		Any suitable container..	3 cwt.	.....	No special precautions...	Allowed.

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP A—STRONG SUPPORTERS OF COMBUSTION—Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label D.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
(b) Solutions up to 40% strength		Suitable glass containers fitted with pressure relief valves firmly packed in iron hampers, or other suitable metal cases, the spaces between the containers and the hampers or cases being filled with either straw, wood fibre, kieselguhr (infusorial earth), or other suitable material. If kieselguhr (infusorial earth) is used it must be retained in position by a fixed iron collar or by sacking soaked in a strong solution of sodium silicate and partially dried. This sacking should be placed round the neck of the container so as to fit tightly, pass over the top of the iron hamper or case and be securely fastened. When a hamper is used it must be enclosed in a suitable strong outer package. Adequate protection for the neck of the container must always be provided.	.....	.....	On deck away from all living quarters and sources of heat, and not exposed to the direct rays of the sun. It must not be stowed in proximity to organic substances generally, particularly powders, resinous substances, oils, or other cargo likely to give off organic vapour. In ships carrying explosives, solutions of greater strength than 6% must not be carried unless the engine and boiler rooms intervene between the holds containing the explosives and the space over which the hydrogen peroxide is stowed.	Not allowed
(c) Solutions of greater strength than 40%		Not allowed except by permission of the Administration.				
Sodium monoxide	Solid..... The commercial material, in the presence of moisture, will cause spontaneous combustion of organic matter.	(A) Strong iron or steel drums or casks, effectively sealed.	.....	.....	(A) Away from all combustible materials, strong acids, explosives, foodstuffs and living quarters. On deck or under deck in a cool place.	(A) Not allowed
		(B) Tins up to 14 lb. packed in a tin-lined case enclosed in a strong outer case.	.....	2 cwt.	(B) Away from all combustible materials, strong acids, explosives, foodstuffs and living quarters. On deck or under deck in a cool place.	(B) *Allowed in small quantities

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP B—SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Brattice Cloth (unless treated so as to be fire resistant)	Liable to spontaneous combustion.	Rolls or bales.....			On or under deck, provided that, where the tarred variety is carried under deck, a certificate is produced from the manufacturer to the effect that it has been properly dried.	Allowed.
Carbon papers	Liable to spontaneous combustion.	Those which contain fatty substances and finely divided carbon or compounds of carbon, in airtight tins in a substantial outer case. Typewriting carbon papers which do not contain an oxidisable oily or fatty substance may be carried without restriction.			On or under deck.....	*Allowed
Copra.....	Some authorities consider that this substance is liable to spontaneous combustion and, therefore, it should not be shipped wet. In some cases, however, fires have been attributed to sparks, cigarette ends, etc.	Bags or in bulk.....			1. Any bags or mats in which copra may be shipped should be dry, and the copra itself as free as possible from moisture. 2. Any damp copra, and/or bags or mats should be rejected. 3. The copra, if carried in a lower hold, should not be stowed against a bulkhead liable to become heated. 4. Efficient ventilation should be provided, both surface and through, and where large quantities of copra are carried, temperatures should be taken night and morning and a record kept. 5. The openings of ventilators should be protected with fine gauze or other contrivance to minimize the risk from sparks. 6. Smoking and the use of naked lights in holds or near open hatches should be strictly prohibited.	*Allowed
Felt, asphalt, saturated roofing, asphalted cloth, and damp courses	Liable to spontaneous combustion.	Rolls.....			May only be carried if a certificate is obtained from the manufacturer that the material has been allowed properly to dry and harden. On deck, or under deck in a cool, well-ventilated and easily accessible place.	*Allowed
Felt, in-odorous	Should not be confounded with tarred roofing and sheathing felts, from which it can generally be distinguished by its lighter colour. Is made generally from waste of flax and jute treated with a resinous compound softened with oils and is liable to spontaneous combustion.	Rolls or frames.....			Preferably on deck; if under deck, in a cool, well-ventilated, easily accessible place and not overstowed.	Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP B—SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION—Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Glue pieces.	Cases of spontaneous combustion have been known in cargoes of this character.	Any suitable container.	.....	.....	On deck, or under deck in a cool, well-ventilated place.	*Allowed
Lampblack.	May cause a dust explosion if it becomes suspended in the air.	Paper-lined casks or iron drums. Printed paper should not be used in the packing.	.....	.....	On or under deck.	Allowed
Oiled material	Liable to spontaneous combustion, especially if newly manufactured and insufficiently dried.	(A) Perforated or otherwise ventilated cases.	.....	.....	(A) On deck or under deck in a cool, well-ventilated and accessible place.	(A) *Allowed
		(B) Hermetically sealed metal-lined cases. When used as packing for other substances care should be taken that the material has been properly dried and that the various folds do not overlap so as to bring several thicknesses together.	.....	.....	(B) As for (A).	(B) *Allowed
Toe puffs (used in the manufacture of boots and shoes)	Consist of several layers of fabric impregnated with celluloid solvent, rosin, and dye, and are liable to spontaneous combustion.	Hermetically sealed tins, a number of such tins being enclosed in a strong wooden case.	.....	.....	On deck, or under deck in a cool, well-ventilated space.	Allowed

SECTION 7—GROUP C—READILY COMBUSTIBLE SOLIDS

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Celluloid Xylonite, etc. (see also films)	Very readily combustible. If combustion takes place in a confined space products of incomplete combustion are formed which are both poisonous and inflammable.	Substantial wooden cases	.....	.....	Away from living quarters. On deck, or under deck in a cool, accessible place.	Allowed provided that if in the raw material, it is carried on deck; and if in the form of manufactured goods it is, when carried below deck, stowed near the deck in the square of the hatch and not under living quarters.

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP C—READILY COMBUSTIBLE SOLIDS—Continued.

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Cold starters (used for starting oil engines)	Combustible material containing its own source of oxygen.	Hermetically sealed tins each containing not more than 150 starters, with a maximum of 10 tins in a felt-lined strong wooden case.	.....	.....	On deck, or under deck in a cool, accessible place away from living quarters.	Allowed
Films (nitro-cellulose base).	Very readily combustible. If combustion takes place in a confined space poisonous and inflammable gases are given off.	Zinc or tin-lined cases. If packed with other material, which is non-inflammable, and if each film is contained in a separate tin, the zinc or tin lining of the outside case is not required.	.....	.....	Away from living quarters. On deck, or under deck in a cool, accessible place.	*Allowed
Matches..... Safety matches 1. Brands approved by the Administration		Nature of contents to be clearly marked on outside of cases. 1. Firmly done up in packages of one dozen, packed in strongly made wooden cases containing not more than 50 gross of matches and lined inside with strong paper. 2. Cases containing more than 30 gross of matches must be fitted on the outside with strengthening battens round the cases or special stiffening of the ends.	.....	.....	In the square of a hatchway and not under living quarters.	Allowed
2. Other brands		Zinc or tin-lined hermetically sealed cases.	.....	.....	As for approved brands.	Allowed
Bengal matches		Matches to be wrapped in paper before being placed in the box. 15 matches in a box. 1 doz. boxes in paper packet. 10 gross boxes in a tin box. 3 tin boxes in a strong wooden case	.....	.....	As for approved brands.	Allowed.
Lucifer matches	Will strike on any surface.	Zinc or tin-lined hermetically sealed cases.	.....	.....	In the square of a hatchway, away from living quarters and foodstuffs.	Not allowed
Naphthalene, crude (creosote salts)	Inflammable; strong tarry smell.	Sound drums or hardwood casks.	.....	.....	Away from living quarters and foodstuffs. On deck, or under deck in a cool, well-ventilated place. In ships carrying explosives the engine and boiler room spaces must intervene between the holds containing the explosives and the hold in which this substance is stowed.	*Allowed in small quantities
Naphthalene, refined [melting point not below 75°C. (167°F.)]	Having a higher melting point, is not so dangerous as the crude material.	Strong closely woven bags.	.....	.....	As for naphthalene, crude, above; but if on deck, protected from the rays of the sun.	*Allowed in small quantities

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP C—READILY COMBUSTIBLE SOLIDS—*Concluded*

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Rosin.....	Readily combustible.	Sound casks.....	.....	.....	On deck, or under deck in a cool, well-ventilated space.	*Allowed
Sulphur...	Will burn, giving off sulphur dioxide, a suffocating gas. Flowers of sulphur is easily ignited by sparks.	(A) In bulk..... (B) Suitable containers, such as drums, casks or cases.	..... .....	..... .....	(A) Away from living quarters. (B) Away from living quarters. On deck, or under deck in a cool, well-ventilated and easily accessible space.	(A) Not allowed (B) Allowed

SECTION 7—GROUP D—MISCELLANEOUS

Bronze powder or Aluminium bronze.	When acted upon by acids will give off hydrogen, an inflammable gas.	(A) Sealed tins in cases..... (B) Tin-lined cases.....	..... .....	..... .....	(A) Away from all mineral acids. On or under deck. (B) As for (A).....	(A) Allowed (B) Allowed
Chemicals and medicinal preparations in limited quantities in mixed consignments.	The properties will be those of the various items, which may belong to any of the Sections.	Liquids—The requisite air space as shown against each substance in the appropriate Section must be left in all containers. In appropriate and effectively-sealed containers, e.g., sealed glass tubes, strong glass bottles with stoppers tied down and luted, earthenware jars similarly closed, metallic tubes or tins fitted with stoppers that can be rendered leakproof; not more than half a gallon in any one container.	3 cwt. .....	..... .....	On or under deck.....	*Allowed
Chemicals and medicinal preparations in limited quantities in mixed consignments— <i>cont.</i>		Solids.—In appropriate and effectively-sealed containers, e.g., glass bottles, earthenware jars, metallic tins so closed by stoppers or lids as to prevent leakage of their contents; not more than 10 lb. in any one container. The containers of liquids and/or solids to be packed with a suitable absorbent or insulating packing material in casks, cases, boxes or crates. Explosives (Section 1) may not be included except as shown below for nitroglycerine, picric acid (dry), dinitrophenol (dry). Hydrocyanic acid of greater concentration than 2%, nickel carbonyl, lead tetraethyl, and ethyl fluid also may not be included.	3 cwt. .....	..... .....	On or under deck.....	*Allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP D—MISCELLANEOUS—Continued

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
		In any one package there may not be more than (A) 1 lb. of any of the following substances: (1) A 1% solution of nitroglycerine in ethyl alcohol, (2) hydrofluoric acid, (3) bromine, (4) picric acid (dry), (5) alkali metals, e.g., sodium, potassium, (6) paranitrosodimethylaniline (dry), (7) barium peroxide, (8) sodium peroxide, (9) sodium monoxide, and (B) 5 lb. of dry di-nitro-phenol. Care must be exercised that substances which react dangerously are well isolated from each other. Shippers are advised to require a certificate to this effect. For picric acid and di-nitro-phenol the containers should not be of metal other than aluminium or an alloy containing not less than 90% of aluminium and stoppers of glass containers should not be of glass.				
Gutta percha or India rubber solution (see Section 4 or 6)	The solvent may be either an inflammable substance, such as benzene, or poisonous, such as carbon tetrachloride	See Section 4 or 6.....				
Lime, slaked	.....	(A) Bags contained in tin-lined cases or hard-wood casks. (B) Strong paper-lined hessian bags, where a certificate from the makers or shippers is produced that the lime is fully slaked, or that it is "Hydrated Lime"	.....	.....	(A) On deck, or under deck away from living quarters. (B) Under deck, away from living quarters.	(A) Allowed (B) Allowed
Calcium azide	Poisonous.....	An air space of not less than 5% must be left in each container.	.....	10 gal.	Away from living quarters, foodstuffs and acids.	Allowed
Aqueous solution of a strength not exceeding 20%	Should any leakage occur the hose should be played upon it to prevent the formation of the solid, which is sensitive to shock and liable to explode if rubbed or scratched.	Effectively sealed drums packed with wet sawdust in outer drums, the whole to be kept immersed in fresh (not salt) water whilst on board ship.			On deck, or under deck in a cool, well-ventilated and easily accessible place.	
Sodium azide	Solid. Is poisonous and in contact with moist air and acids will give off a poisonous gas. When directly heated (to 350°C.) will decompose with the formation of metallic sodium. (See Section 3).	Sealed, air-tight, tinned iron containers packed with insulating material, such as wool, in wooden cases.	1 cwt.	.....	On deck by itself or under deck away from living quarters, foodstuffs, combustible materials, and acids, in a dry, well-ventilated place adjacent to a hatchway, and not overstowed by other cargo.	Not allowed

*Allowed in emigrant ships only by permission of the Emigration Officer.

Canada Shipping Act—continued

SECTION 7—GROUP D—MISCELLANEOUS—Concluded

MARKING.—Every package must be marked in accordance with rules 9 and 10 on page 9. The appropriate label for substances in this Section is label E.

Substance	Properties	Packing	Maximum weight or capacity allowed		Stowage	Passenger ships as defined in Part I
			Gross	Net		
Picric acid, mixed with not less than half its own weight of water	If it becomes heated gradually through proximity to a fire such as might occur on board ship it may explode with considerable violence. Becomes explosive when dry. (See Section I.)	Sound wooden casks or cases of sufficient strength to prevent any escape of the contents.	.....	.....	Away from mineral acids and inflammable liquids and so as not to come in contact with lead or metallic oxides (such as the oxides of copper, iron, lead or zinc), baryta, lime, potash, soda, and any compound of such metal or oxide (other than a metallic sulphate), or any chlorate, nitrate, or other oxidising agent.	Not allowed
Di-nitro-phenol, mixed with water in the proportion of 85 parts by weight di-nitro-phenol to not less than 15 parts by weight of water			As for wet Picric acid.			

*Allowed in emigrant ships only by permission of the Emigration Officer.

Circular 1768 (May, 1944).

MINISTRY OF WAR TRANSPORT

INSTRUCTIONS TO SURVEYORS AND NOTICE TO SHIPOWNERS,
SHIPMASTERS AND SHIPPERS

*Conditions of Stowage of Explosives and of Dangerous
and certain other goods in ships*

(NOTE.—This Circular supersedes Circular 1740.)

I

In Notice No. 130 of November, 1933, the Mercantile Marine Department of the Board of Trade indicated that subject to certain reservations as to marking and labelling, the Board had adopted as constituting the Rules to be followed in the loading of such substances the Appendix to the Report of the Committee appointed in 1930 to consider the existing Board of Trade Memorandum on the Carriage of Dangerous Goods and Explosives in ships.

Canada Shipping Act—continued

It has now been found necessary to review, in the light of experience of war conditions, the Rules as to the stowage of explosives in ships, and new instructions entitled "Conveyance of Government Explosives in Freight Ships during the Present Emergency (T. 152, 1943 edition)" have been drawn up to replace during the present emergency the Instructions on this subject formerly contained in the Sea Transport Regulations. The last-mentioned Instructions were an amplification of the Rules contained in Section I, pages 34 to 38, of the Report of the Committee above referred to. While the new instructions apply primarily to the shipment of Government explosives in freight ships as therein defined, the paragraphs specified in the next sentence are to be regarded as replacing during the present emergency the corresponding Rules as to stowage contained in pages 34 to 38 of the Report, except 12 (c), relating to commercial fireworks, and 12 (g), relating to picric acid and di-nitro-phenol. The paragraphs of the new Instructions (T. 152) which are to replace the Rules in question are paragraphs 3 to 6, 8 (so far as it relates to the responsibility of the master for safe stowage and the presence of a responsible ship's officer during loading), 17 to 22, 24 to 37 and Appendices I and II. It will be observed that Appendix I of T. 152 contains a new grouping of explosives which differs from that in the List of Authorized Explosives published by the Home Office and indicates the nature of the stowage (e.g., whether in a magazine, etc.) for each article. Should any difficulty be found in deciding under which of the new stowage regulations any commercial explosives submitted for export fall, reference may be made to the Minister of War Transport (Marine A Division), or to the Chief Inspector of Explosives, Home Office, for advice.

II

Arising out of the review above mentioned, it has been found necessary also to review the conditions of stowage of dangerous goods and certain other materials in ships carrying explosives. It has been decided to put into operation during the present emergency certain amendments in the Rules set out in the Report of the 1930 Committee as to the conditions of stowage of such substances in relation to explosives. These are set out in Appendix A. The general rules governing the carriage of such substances set out on pages 22 to 24 of the Report (except paras. 9 and 10 relating to marking and labelling) and the Rules contained in the Report as to the packing of dangerous goods and their stowage in relation to the ship and to one another still continue to apply. (See also Part III of this Circular.) The conditions of stowage prescribed in Appendix A in relation to explosives do not apply to chemicals and medicinal preparations in limited quantities in mixed consignments (*see* pages 130 to 133 of the Report). Whilst such goods should preferably be stowed in a separate hold from explosives, they may be stowed in the same hold provided they are in a separate compartment.

III

The opportunity has also been taken to consolidate certain additions, which have been made since the publication of the Report, to the list of dangerous goods and certain amendments to the rules in regard to the packing and stowage of goods mentioned in the Report which have been issued from time to time. These are contained in Appendix B. They are of general application and not limited to ships carrying explosives.

Ministry of War Transport, May, 1944

Canada Shipping Act—continued

APPENDIX A

RESTRICTIONS AS TO STOWAGE OF CERTAIN MATERIALS
IN SHIPS CARRYING EXPLOSIVES

(For rules as to the packing of these materials and their stowage in relation to one another see the Report of the 1930 Committee and Appendix B of this Circular.)

Materials in Section I may not be carried.

Deck Cargo. Materials other than those in Section I may be conveyed as deck cargo provided that dangerous liquids, calcium carbide and phosphide and sodium and potassium metals are not placed above explosives stowed immediately below the upper deck and that any leakage from liquids is free to drain overboard. When possible the engine room space should intervene between the holds in which the explosives are carried and those over which materials included in Sections II, III and VII are stowed. Goods in deck houses above the upper deck should be treated in these respects as deck cargo.

Under-deck cargo. Materials other than those in Sections I and VII of the list may be carried under deck subject to the restrictions set out below.

SECTION I.—*Not to be carried.*

Carbon bisulphide.

Ether sulphuric, except as specified in Section II.

Nickel carbonyl.

SECTION II.—*To be separated from the explosives by the engine and boiler room space.* (This restriction need not apply in the case of petrol for use of the ship not exceeding 200 gallons which must be stowed well away from all cargo spaces and ventilators leading thereto and not in dangerous proximity to the explosives. Small quantities of materials in Section II shipped as medical stores may be carried under the conditions of Section IV.)

Acetylene.

Barium chlorate.

Barium peroxide.

Butane.

Calcium carbide.

Calcium peroxide.

Calorgas, Bottogas and similar petroleum derivatives.

Chromic acid.

Carbon monoxide.

Coal gas.

Ether sulphuric—in small hermetically sealed containers packed as specified on page 76 of the "Dangerous Goods Report."

Ethyl chloride.

Ethylene.

Ferrocenium.

Hydrogen.

Inflammable liquids of flash point below 73° F. (22·8° C.), miscible with water.

*Inflammable liquids of flash point below 73° F. (22·8° C.), immiscible with water, other than those specified in Section I.

K.O.F.Q.R.

Magnesium peroxide.

*The conveyance of such liquids in ships carrying explosives involves serious risk and should only be adopted when no reasonable alternative exists.

Canada Shipping Act—continued

Manganese peroxide.
 Methane.
 Phosphorus sulphide.
 Phosphorus, white, yellow or stick.
 Potassium bromate.
 Potassium chlorate.
 Potassium metallic (may not be carried on deck except in deckhouses).
 Propane.
 Sodium chlorate.
 Sodium hydrosulphite.
 Sodium metallic (may not be carried on deck except in deckhouses).
 Sodium peroxide.
 Strontium peroxide.
 Zinc peroxide.
 Zinc powder and dust.

SECTION III.—*May not be carried in the same hold with the explosives.*
 (Small quantities shipped as medical stores may be carried under the conditions of Section IV.)

Aluminium powder.
 Aluminium ferro-silicon (alsimin).
 Ammonia—aqueous solutions.
 Ammonia gas.
 Ammonium bichromate.
 Ammonium carbonate.
 Ammonium perchlorate.
 Ammonium permanganate.
 Barium oxide.
 Barium permanganate.
 Bleaching powder.
 Brattice cloth.
 Bronze or aluminium bronze powder.
 *Calcium azide solution.
 Calcium bisulphite.
 Calcium chlorate solution.
 Calcium cyanamide (nitrolim).
 Calcium manganese silicon.
 Calcium metallic.
 Calcium silicide.
 Calcium silicon.
 Carbon papers.
 Celluloid xylonite, etc.
 Charcoal and coal dust powder.
 Chlorine.
 Chlorsulphonic acid (in approved steel drums).
 Copra.
 Ethyl fluid.
 Felt, asphalt, saturated roofing, asphalted cloth and damp courses.
 Felt, inodorous.
 Ferro-silicon (all grades other than that containing 45-50 per cent silicon).

*Must be stowed in other respects in accordance with the restrictions already stipulated for picric acid (see par. 12 (g), page 36 and page 135 of Report).

Canada Shipping Act—continued

Films (nitrocellulose base).
 Glue pieces.
 Hydrochloric acid (in approved special or rubber lined steel drums).
 Hydrocyanic acid when in steel cylinders.
 Hydrogen peroxide.
 Inflammable liquids of flash point from 73° F. to 150° F.
 Lamp black.
 Lead perchlorate (exsiccated).
 Lead perchlorate solution.
 Lead tetra-ethyl.
 Lime, quick or unslaked.
 Magnesium alloys (containing 50 per cent or more of magnesium).
 Magnesium metal, powder.
 Magnesium metal, ribbon.
 Matches (all brands).
 Mercuric chloride.
 Methyl chloride.
 Nitric acid (in approved aluminium or steel drums).
 Nitric and Sulphuric acid mixtures (in approved steel drums).
 Nitrous oxide.
 Oiled material.
 Oxide of iron spent.
 Oxygen.
 Para-nitrosodimethyl-aniline (accelerene).
 Phosgene.
 Phosphorus, amorphous.
 Potassium metabisulphite.
 Potassium perchlorate.
 Potassium permanganate.
 Potassium sulphide (anhydrous or hydrated).
 Sea markers (filled aluminium powder).
 Silicon powder.
 *Sodium azide.
 Sodium bisulphite solution.
 Sodium metabisulphite.
 Sodium sulphide (anhydrous or hydrated).
 Sulphur dioxide.
 Sulphuric acid (in approved steel drums or specially packed as indicated in Appendix B).
 Sulphur monochloride.
 Sulphurous acid.
 Titanium tetrachloride (in approved steel drums).
 White spirit paints and enamels with flash points of 88° F. and over.

SECTION IV.—*May be stowed in the same hold as the explosives but in a separate compartment below that containing them.*

Aluminium, granulated.
 Aluminium chloride.
 Ammonium fluoride.
 Ammonium nitrate.

*Must be stowed in other respects in accordance with the restrictions already stipulated for picric acid (see par. 12 (g), page 36 and page 135 of Report).

Canada Shipping Act—continued

Aniline salt.
 Carbon dioxide.
 Caustic potash.
 Caustic soda.
 Cold starters (used for starting oil engines).
 Compressed air.
 *Dinitro-ortho-cresol.
 *Dinitrophenol containing 15% of water calculated on the wet material.
 *Dinitro resorcinol containing 33 $\frac{1}{3}$ % of water calculated on the wet material.
 Dye intermediates.
 Ferric chloride.
 Lead sulphate (wet containing free H₂SO₄).
 Lime, slaked.
 Magnesium metal—ingots or sticks.
 Naphthalene crude (Creosote salts).
 Naphthalene refined.
 Nicotine.
 Nitre cake.
 Nitrobenzol.
 Nitrogen.
 Persulphates.
 Picric acid containing 33 $\frac{1}{3}$ % of water calculated on the wet material.
 *Potassium dinitrophenate containing 33 $\frac{1}{3}$ % of water calculated on the wet material.
 Potassium bichromate.
 Rosin.
 Sodium bichromate.
 Sodium perborate.
 Sodium percarbonate.
 Superphosphates.
 Water glass.
 Zinc chloride.

SECTION V.—*May be stowed in the same compartment as the explosives but not overstowing any explosive other than plugged shell.*

Baking soda and similar preparations.
 Barium nitrate.
 Potassium bicarbonate.
 Potassium carbonate.
 Potassium nitrate.
 Soaps other than toilet soaps.
 Sodium bicarbonate.
 Sodium carbonate.
 Sodium nitrate.
 Zinc, granulated.

*Must be stowed in other respects in accordance with the restrictions already stipulated for picric acid (see par. 12 (g), page 36 and page 135 of Report).

Canada Shipping Act—continued

SECTION VI (a).—*The following substances may not be stowed in the same hold with explosives requiring magazine stowage or with pyrotechnic explosives; they may be stowed in the same hold though not in the same compartment with other explosives.*

Acetic acid.
Aniline oil.
Disinfectant liquids.
Ferro silicon (special grade containing 45·50 per cent silicon).
Formic acid.
Harpic.
Iodine (crude or mineral).
Propionic acid.
Rubber accelerators [other than Para-nitrosodimethyl-aniline (accelerine)].

(b) *The following substances may not be stowed in the same compartment with explosives requiring magazine stowage or with pyrotechnic explosives; they may be stowed in the same compartment with other explosives but not overstowing such explosives other than plugged shell.*

Phosphoric acid.
Sulphur.

SECTION VII.—*May be stowed on deck only.*

Antimony chloride.
Benzoyl peroxide.
Bromine.
*Calcium phosphide.
†Chlorsulphonic acid (except when in approved steel drums).
Hydrobromic acid.
Hydrochloric acid (except when in approved special or rubber lined steel drums).
Hydrocyanic acid (except when in steel cylinders).
Hydrofluoric acid.
Nitric acid (except when in approved aluminium or steel drums).
Nitric and sulphuric acid mixtures (except when in steel drums).
Perchloric acid.
Phosphorus oxychloride.
Phosphorus pentachloride.
Phosphorus trichloride.
Sulphuric acid (except as in Section III).
Sulphuryl chloride.
Thionyl chloride.
Tin tetrachloride (anhydrous).
†Titanium tetrachloride (except when in approved steel drums).

*Note 1.—The following articles contain calcium and/or other metallic phosphides:—
Candles, smoke, white;
Flames, float navigation;
Markers, marine.

Where the quantities of calcium phosphide and/or any of these articles requiring shipment is such as cannot conveniently be stowed on deck, they may be stowed in a 'tween deck compartment under the conditions shown in Appendix B and away from explosives.

†Note 2.—Small quantities up to $\frac{1}{2}$ lb. of chlorsulphonic acid or up to $\frac{1}{2}$ lb. titanium tetrachloride in specially strong steel containers may be carried under deck under the conditions shown in Appendix B. This ruling applies to:—

Bombs, smoke, C.S.A.M.;
Bombs, smoke, F.M.
(These are not explosives.)

Canada Shipping Act—continued

APPENDIX B

ADDITIONS AND AMENDMENTS TO THE RULES OF THE REPORT OF THE
COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND
EXPLOSIVES IN SHIPS, 1933*Compressed "Permanent" Liquified and Dissolved Gases*

NOTE I.—During the war certain relaxations of the peacetime rules for gas cylinders have been allowed, details of which may be obtained from the Ministry of War Transport Principal Officers and Surveyors. So far as concerns carriage by sea the following are applicable.

Section 2. Part I, page 18, para. 1. Certain variations have been allowed in the chemical composition of the steels and in the test requirements.

Approved wire wound cylinders are allowed for non-inflammable gases.

Page 18, para. 3. The working pressure may be increased to 1,980 lbs. per square inch. Special high pressure cylinders have been approved for air, nitrogen and oxygen at a working pressure of 3,000 lbs. per square inch.

Page 18, para. 7. The test period may be extended from two to four years for approved cylinders not more than 25 years old.

Page 18, para. 13. In the case of approved cylinders for breathing dresses, the working pressure may be increased to 2,250 lbs. per square inch.

Section 2. Part II, page 19, para. 1. Approved wire wound cylinders may be used for carbon dioxide.

Page 20, para. 8. The test period may be extended from two to four years for approved cylinders not more than 25 years old.

Part IV, page 21, para. 1. In the case of approved welded containers not more than 25 years old the test period may be extended from two to three years.

In addition to the above permission is granted in suitable cases for the use of foreign made cylinders.

NOTE 2.—Add the following:—

Section 2. Part II, page 19, after para 4:—

"The general conditions laid down in this section also apply to butane, propane, calorgas, bottogas and similar petroleum derivatives, but owing to the varying composition of these gases which renders the calculation of filling ratios and working pressures necessarily inexact no figures are given in Table I".

Section 2. Part II, page 20, para. 14, after "phosgene" in the second line:—

"and containers holding butane, propane, bottogas or similar petroleum derivatives".

Section 2. Part IV, page 21, para. 5.

"Calorgas and similar gases intended for domestic use may be carried in special welded containers which have been approved by H.M. Inspectors of Explosives".

Canada Shipping Act—continued

APPENDIX B—Continued
ADDITIONS AND AMENDMENTS TO THE RULES OF THE REPORT OF THE COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS, 1933—Continued

Section and Group	Substance	Properties	Packing	Minimum Air Spaces to be allowed	Maximum Weight or Capacity		Stowage [For stowage in ships carrying explosives see Appendix A]	Passenger Ships as Defined in Part I
					Gross	Net		
3A	CALCIUM PHOSPHIDE or articles charged wholly or mainly with Calcium Phosphide.	As on page 28 of "Dangerous Goods Report".	As on page 28 of "Dangerous Goods Report" but when in the form of smoke signals or similar articles, suitably packed no limit of weight for one package is prescribed.				On deck or in special circumstances (see Note 1, page 60) under deck in a cool, well ventilated, and easily accessible space, away from living quarters, acids, or other inflammable substances.	Not allowed.
	CALCIUM SILICON, Calcium Manganese Silicon.	Liable to evolve inflammable gas when in contact with water. Evolves spontaneously inflammable gas with acids	As for Calcium Silicide				As for Calcium Silicide	Not allowed.
	FERRIC CHLORIDE.....	Deliquescent solid which is decomposed by water with the formation of HCl and Hydrated oxide of iron. Is corrosive to iron and steel when dissolved in water.	Hermetically sealed glass or earthenware containers packed with suitable packing material in boxes, cases or casks, or in thermally sealed iron or steel drums.				To be stowed away from foodstuffs and living quarters.	*Allowed.
	FERRO-SILICON (Special grade containing 45%–50% silicon) (Note—Other grades are governed by the Rules on p. 28 of the Report.)	Samples of certain special grades in lump form have been found on test to yield only negligible quantities of gas when kept in contact with water for one month. Consignments of such goods to be carried on board ship must be certified by the manufacturers to the satisfaction of the shipowner or his agents, as similar to samples which have been submitted to the Government Chemist and approved.	Strong cases, barrels or drums				On or under deck in a dry, well ventilated and easily accessible space, away from living quarters and caustic alkalies.	Not allowed.
	HARPIC.....	Disinfectant. Corrosive when in contact with water.	Stout hermetically sealed tins packed in strong cases.				In a dry place.....	Allowed.

*Allowed in Emigrant Ships in limited quantities only by permission of the Emigration Officer

Canada Shipping Act—continued

APPENDIX B—Continued									
ADDITIONS AND AMENDMENTS TO THE RULES OF THE REPORT OF THE COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS, 1933—Continued									
Section and Group	Substance	Properties	Packing	Minimum Air Spaces to be allowed	Maximum Weight or Capacity	Stowage	Passenger Ships as Defined in Part I		
					Gross	Net			
	K O F. Q. R.	Liable to fire in contact with water.	One pint tins of the screw top type with inner sealing disc, packed in felt lined cases of 1" wood with battens. Not more than 12 tins to be in a case, each tin in a separate compartment, securely packed with sawdust, the cases to be clearly marked on the outside indicating the "Top" and bearing the legend "To be kept dry". When carried as deck cargo the cases must be stowed in covered steel containers.	5% for temperate climates 7½% for tropical climates			On or under deck in a dry and easily accessible space. Not to be stowed in the same hold or compartment with inflammable substances or supporters of combustion.	Not allowed.	
	MAGNESIUM ALLOYS (containing 50% or more of magnesium).	As magnesium.	As for magnesium.				As for magnesium.	As for magnesium.	
	SODIUM METAL.	See page 29 of the "Dangerous Goods Report".	As set out on page 29 of the "Dangerous Goods Report" except that oil dipping need not be required provided the blocks are packed in hermetically sealed tin containers not more than 28 pounds packed in sawdust in an outer hermetically sealed case.	As set out on page 29 of the "Dangerous Goods Report".					
3B	PHOSPHORUS, white, yellow or stick.	See page 31 of the "Dangerous Goods Report".	(A) and (B) as set out in page 31 of the "Dangerous Goods Report". (C) Hermetically sealed iron or steel drums.		5 cwt.		(C) On deck or under deck in a deep tank.	(C) Not allowed	
	SODIUM HYDROSULPHITE.	In anhydrous form is liable to become hot in contact with moist air.	(A) Hermetically sealed tins packed with suitable packing material in a strong outer case. (B) Hermetically sealed iron or steel drums.				On or under deck in a cool, well ventilated space, away from acids or combustible materials.	(A) Allowed. (B) Allowed.	
4	Flash points from 73°F. (22.8°C.) to 150°F. (65.6°C.).	(A) As set out in page 32 of the "Dangerous Goods Report". (B), (C) & (D). As set out in page 32 of the "Dangerous Goods Report" with flash points above 88°F. (31.1°C.) to 150°F. (65.6°C.). The tonnage limitation on the quantity allowed to be carried in a passenger ship need not apply provided that: (1) when under deck the materials are confined to holds away from living quarters and containing no other combustible cargo; (2) when on deck the materials are stowed away from other combustible cargo, clear of space allocated to passengers.	(A) As set out in page 32 of the "Dangerous Goods Report".						

Canada Shipping Act—continued

AMMONIUM AND SODIUM SULPHO-CYANIDES.	Solids: do not decompose below 320°C. and 430°C. respectively. When wet will corrode metals. They are also attacked by acids giving rise to the gas carbonyl sulphide which is inflammable and a narcotic poison.	Airtight and watertight wooden casks or cases, tongued and grooved throughout, with the corners reinforced inside, waxed thoroughly inside and lined with ungazed "Kraft" bags waxed on two sides.	.....	.....	On or under deck in a dry space away from acids.	Allowed.
CALCIUM BISULPHITE.....	Corrosive liquid liable to attack iron and steel.	(A) Watertight wooden casks..... (B) Small quantities in glass or earthenware containers packed with sawdust or other effective absorbent materials in wooden cases.	10% 10%	.....	(A) On or under deck away from acids. (B) As for (A).....	(A) Allowed. (B) Allowed.
CHLORSULPHONIC ACID.....	Fuming liquid reacting very violently with water, producing sulphuric acid and hydrochloric acid.	(A) (B) and (C) as set out for Sulphuric Chloride in page 41 of the "Dangerous Goods Report" (D) Specially approved steel drums	10%	.....	(D) On or under deck; when under deck in dry space the stowage space is to be prepared by the construction of a cement tray as follows:— Lime free cement is to be laid over the required deck area to a thickness of 3", sealing all scuppers and drain spaces. To reduce the risk of cement being cracked by the working of the vessel, material such as fibre-boards or expanded metal could be laid on the deck before applying the cement so that the cement would not become a rigid part of the vessel's structure but would, in fact, remain a close fitting tray, the four walls of which should extend in the case of standard 50-gallon drums stowed on end, to a height of 18", or, in the case of smaller drums stowed on their sides in tiers, to the height of the centre of the upper tier.	(D) Not allowed.
FORMIC ACID.....	Liquid, corrosive to skin and metals, liable to decomposition into Carbon Monoxide and Hydrogen when heated in contact with certain materials such as finely-divided metals.	(E) Small, especially strong steel containers containing up to ½-lb of chlorosulphonic acid packed in stout boxes (A) securely closed glass or earthenware containers packed singly in—(i) wicker hamper with wicker bonnets or (ii) stout slatted crates lined with stout corrugated paper and with adequate protection for the neck of the container, or (iii) strong iron hamper with iron bonnets with not less than ½ inch of straw packing or other suitable insulating material between the container and the hamper—the whole to be contained in a close fitting case, crate or hamper.	10%	.....	(E) On or under deck..... (A) On or under deck; if under deck may not be overstowed.	(E) Not allowed. (A) *Allowed.

*Allowed in Emigrant Ships in limited quantities only by permission of the Emigration Officer.

Canada Shipping Act—continued

APPENDIX B—Continued

ADDITIONS AND AMENDMENTS TO THE RULES OF THE REPORT OF THE COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS, 1933—Continued

Section and Group	Substance	Properties	Packing	Minimum Air Spaces to be allowed	Maximum Weight or Capacity		Stowage [For stowage in ships carrying explosives see Appendix A]	Passenger Ships as Defined in Part I
					Gross	Net		
5— Con.	HYDROCHLORIC ACID.....	See page 38 of the "Dangerous Goods Report".	(B) Strong rubber lined iron or steel drums. (A) and (B) as set out in page 38 of the "Dangerous Goods Report".	5%	.....	100 gal.	(B) On or under deck.....	(B) *Allowed.
	IODINE (Crude or Mineral)....	Mild corrosive. Evolves irritant vapour slowly at ordinary temperatures, more rapidly at elevated temperatures.	In sound hardwood casks.....	.....	.....	.....	(C) On or under deck; when under deck or in deck houses the stowage space is to be prepared by the construction of a cement tray as for Chlorosulphonic Acid.	(C) Not allowed
	NITRIC ACID.....	See page 38 of the "Dangerous Goods Report".	(A), (B) and (C) as set out in page 38 of the "Dangerous Goods Report". (D) For acid of not less than 50% strength (specific gravity not less than 1.32) and not more than 95% strength (specific gravity 1.5) specially approved drums of acid resisting steel.	.....	.....	.....	In a dry well ventilated easily accessible space away from living quarters and sources of heat. All risks of contaminating food-stuffs and other cargo to be avoided. Casks not to be over-stowed. Not to be stowed in the same hold or compartment as matches, phosphorus or ammonia. (D) On or under deck; when under deck or in deck houses the stowage space is to be prepared by the construction of a cement tray as for Chlorosulphonic Acid. Away from all other substances in Section 5 and combustible substances.	(D) Not allowed.
	NITRIC ACID and SULPHURIC ACID mixtures (mixed acids)		(A) and (B) as set out in page 38 of the "Dangerous Goods Report". (C) For mixed acids certified to contain not more than 15% of water specially approved steel drums.	7½%	.....	.....	(C) On or under deck; when under deck or in deck houses the stowage space is to be prepared by the construction of a cement tray as for Chlorosulphonic Acid. Away from all other substances in Section 5 and combustible substances.	(C) Not allowed
	PERCHLORIC ACID.....	Strong acid, corrosive, may cause spontaneous ignition with combustibles.	Glass or earthenware containers packed in cases with suitable non-combustible absorbent material.	.....	.....	2½ gals.	On deck only. Away from strong acids and combustible materials.	Not allowed.

Canada Shipping Act—continued

PHOSPHORIC ACID.....	Mildly corrosive. Liquid or paste	Sound watertight wooden casks for phosphoric acid paste and phosphoric acid of specific gravity 1.5 (or 1.75 on short voyages, viz., seven days) provided the casks have not been filled for any considerable period prior to shipment. A declaration is required that no Sulphuric Acid is present.	5%	.....	On or under deck.....	Allowed.
PHOSPHORUS OXYCHLORIDE.	Fuming liquids which react with water giving hydrochloric acid and either phosphorus or phosphoric acid.	Strong hermetically sealed iron or steel drums.	10%	.....	On deck only.....	Not allowed.
PHOSPHORUS TRICHLORIDE..		Sound iron or steel drums.....	10%	.....	On deck only.....	Not allowed.
PHOSPHORUS PENTACHLORIDE		As for acetic acid.....	See page 36 of the "Dangerous Goods Report".	.....	.....	.....
PHOSPHORIC ACID.....	Corrosive liquid.....	(A), (B) and (C) as set out in pages 39 and 40 of the "Dangerous Goods Report".	5%	.....	.....	(D) Not allowed.
SULPHURIC ACID (not including Oleum or Nordhausen).	See page 39 of the "Dangerous Goods Report".	(D) Securely closed glass or earthenware capacity, the cover cap or stopper to be sealed with an external cover (e.g., open weave hessian impregnated and secured with Plaster of Paris). The container to be secured in position by means of a plywood frame in an outer case of 3" tongued and grooved softwood timber, with a 2" space between frame and case. The whole of the space between container, frame and case to be packed with whitening or other effective inorganic neutralising material (a well mixed mixture of some sawdust, and sufficient whitening or chalk to neutralise the acid may be used).	5%	.....	.....	(D) Not allowed.
TITANIUM TETRACHLORIDE....	See page 42 of the "Dangerous Goods Report".	(A) and (B) as set out in page 42 of the "Dangerous Goods Report". (C) Specially approved steel drums	10%	.....	.....	(C) Not allowed
		(D) Small, specially strong steel containers containing up to 4 lb. of titanium tetrachloride packed in stout boxes.	.....	.....	(D) On or under deck.....	(D) Not allowed

*Allowed in Emigrant Ships in limited quantities only by permission of the Emigration Officer.

Canada Shipping Act—continued

APPENDIX B—Continued

ADDITIONS AND AMENDMENTS TO THE RULES OF THE COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS, 1933—Continued

Section and Group	Substance	Properties	Packing	Minimum Air Spaces to be allowed	Maximum Weight or Capacity		Stowage [For stowage in ships carrying explosives see Appendix A]	Passenger Ships as Defined in Part I
					Gross	Net		
5— Con.	SULPHURIC ACID—Con.							
	ZINC CHLORIDE.....	Liquid or solid. Corrosive to skin	(A) Glass or earthenware containers in cases with suitable absorbent materials or in lead coated iron or steel drums. (B) Hermetically sealed containers.	10%			On or under deck.....	(A) Allowed
6A	CARBON TETRACHLORIDE.....	See page 43 of the "Dangerous Goods Report".	Methods (A) & (B) as set out on page 43 of the "Dangerous Goods Report". (C) Glass carboys up to 5 gallons capacity suitably packed in wooden cases.	As set out on page 43 of the "Dangerous Goods Report".				(B) Allowed
6B	CALCIUM LEAD, ARSENATE.....	Poisonous.....	In double lined paper bags securely closed and tightly packed in fibre board containers. Glass or earthenware containers, packed in cases with suitable non-combustible absorbent material.	10%			(C) As for (A).....	(C) Allowed
	LEAD PERCHLORATE (SOLUTION).	Poisonous.....			100 lb.		Away from foodstuffs and living quarters, not to be over-stowed.	Allowed
	LEAD PERCHLORATE (Exsiccatd).	Poisonous, with combustible materials forms explosive mixtures.				2½ gal.	Away from strong acids and combustible materials.	Allowed
	LEAD SULPHATE (Wet containing free H ₂ SO ₄).	Poisonous.....	Hermetically sealed iron or steel drums or casks.				Away from strong acids and combustible materials.	Allowed
7A	PERMANGANATES.....	Mixed with combustible matter are liable to ignition by friction and to spontaneous combustion if acted on by strong acids and certain other substances.	Watertight wooden barrels lined or lead coated drums.				On or under deck away from foodstuffs and living quarters.	Allowed
	POTASSIUM PERMANGANATE.....	See page 51 of the "Dangerous Goods Report".	(A) As in page 51 of the "Dangerous Goods Report".				(A) On or under deck, away from combustible materials, strong acids, glycerine, peroxides, aldehydes, formic acid and aniline. (B) As for (A).....	(A) Allowed (B) *Allowed
	AMMONIUM PERMANGANATE.....	See page 51 of the "Dangerous Goods Report".	(B) Steel drums.....				As for Potassium permanganate. In a cool place and away from living quarters.	Not allowed
	BARIUM PERMANGANATE.....	See page 51 of the "Dangerous Goods Report".					As for potassium permanganate and away from foodstuffs.	*Allowed

Canada Shipping Act—continued

PERMUTPHATES.....	Powerful oxidising agents producing acid and oxygen on decomposition.	Iron or steel drums or sound, hardwood casks.	As for Sodium Peroxide	10%	13 gal.	Away from combustible materials and strong acids.	Allowed
CALCIUM PEROXIDE.....	See "Peroxides", page 51 of the "Dangerous Goods Report".					As for Sodium Peroxide	
HYDROGEN PEROXIDE.....	See page 51 of the "Dangerous Goods Report".	Solutions up to 35% in carboys provided with relief vent to allow escape of oxygen, packed in metal containers.				May be stowed under deck.....	Not allowed over 6%
MAGNESIUM PEROXIDE.....	See "Peroxides", page 51 of the "Dangerous Goods Report".	As set out for Barium Peroxide in page 51 of the "Dangerous Goods Report".					
SODIUM PEROXIDE.....	See page 51 of the "Dangerous Goods Report".	(A) As set out in page 51 of the "Dangerous Goods Report". (B) Strong, hermetically-sealed tins up to 56 lbs. in a tin-lined case enclosed in a strong outer case.			2 cwt.	(B) Away from combustible materials, strong acids, foodstuffs and living quarters.	(B) *Allowed in limited quantities.
SPRONTIUM PEROXIDE.....	See "Peroxides", page 51 of the "Dangerous Goods Report".		As for Sodium Peroxide.				
ZINC PEROXIDE.....	See "Peroxides", page 51 of the "Dangerous Goods Report".	As set out for Barium Peroxide in page 51 of the "Dangerous Goods Report".					
CHARCOAL AND CARBON, 1. POWDERED CHARCOAL.	Possibility of a dust explosion or of fire due to spontaneous combustion.	On production of a declaration from the makers that the substance has been exposed to the air for 8 days after grinding so as to render it not liable to spontaneous combustion. (A) In paper lined casks or iron drums. (B) In sealed stout paper bags packed in strongly constructed outer cases. N.B.—Printed paper must not be used in the packing. (A) A hessian outer sack with crepe paper lining attached to the inside of the sack with adhesive; a double crepe paper inner sack, the two sacks to be folded separately at the mouths and the outer sack tied with string, the end of which is to be doubled back and retied. (B) Five ply paper outer sack with double crepe paper inner sack—all secured as for (A). (C) Six ply paper sack secured as for outer sack in (A). (D) Sealed stout paper bags contained in strongly constructed wooden outer cases. Printed paper should not be used in the packing.				On or under deck.....	(A) Allowed (B) Allowed (A) Allowed
2. ACTIVATED CARBON; DE-COLOURISING CARBON; POWDERED CHARCOAL quenched in water in manufacture.	Possibility of dust explosion.....						(B) Allowed (C) Allowed (D) Allowed

Canada Shipping Act—continued

APPENDIX B—Continued
 ADDITIONS AND AMENDMENTS TO THE RULES OF THE REPORT OF THE COMMITTEE ON THE CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS, 1933—Continued

Section and Group	Substance	Properties	Packing	Minimum Air Spaces to be allowed	Maximum Weight or Capacity		Stowage [For stowage in ships carrying explosives see Appendix A]	Passenger Ships as Defined in Part I
					Gross	Net		
7C	3. NEW ANIMAL (Granular).	No danger of dust explosion or of fire due to spontaneous combustion.	In single jute bags.				On or under deck.	Allowed
	4. PEAT.	Breaks down into granular form but only a small proportion of fine dust is formed and the amount which might be expected to pass through the fabric is too small to cause any danger from combustion.	In heavy twill bags.				No special precautions necessary.	Allowed
	5. COCONUT SHELL (Granulated).	Risk of dust explosion is negligible as it is not a powder.	(A) In 6 ply paper bags secured with wire ties. (B) In paper lined casks. (C) In new iron or steel cylinders or drums. Printed paper should not be used in the packing and the manufacturers of the substance should make a declaration that it has been exposed to the air for at least 8 days after being ground in such a manner as to render it not suitable to spontaneous combustion.				Away from sources of heat in cool and easily accessible spaces.	Allowed
	FERROCERIUM.	Dangerous from its power of sparking in air when struck.	(A) Hermetically sealed tins packed with sawdust, woodwool or other suitable packing material, and contained in a strong outer case. (B) Hermetically sealed iron or steel drums or hardwood casks.		2 cwt.		Not to be stowed in the same hold or compartment with inflammable substances or supporters of combustion.	(A) *Allowed (B) Not allowed
7D	Commercial slow burning Safety Fuze (Approved types).	Inflammable.	Strong wooden cases each containing not more than 20 000 feet of fuze. Cases exceeding 9 cubic feet to be fitted on the outside with strengthening battens or special stiffening at the ends. As for Ferrocium.				In the square of the hatchway away from living quarters and separated from low flash point liquids and strong acids.	Allowed
	SILICON POWDERED.	Combustible and forms readily inflammable mixtures with supporters of combustion. Is explosive if dry.	Hermetically sealed tins packed in wooden cases.		2 cwt.		As for Ferrocium.	As for Ferrocium.
	BENZOYL PEROXIDE. Wetted with at least 25% of its weight of water.						On deck in a cool and easily accessible space.	Allowed

*Allowed in Emigrant Ships in limited quantities only by permission of the Emigration Officer.

Canada Shipping Act—continued

NOTICE TO SHIPOWNERS, SHIPMASTERS AND SHIPPERS

CARRIAGE OF DANGEROUS GOODS AND EXPLOSIVES IN SHIPS

1. Article 24 of the International Convention for the Safety of Life at Sea, 1929, provides:—

- (a) that the carriage on passenger ships, either as cargo or ballast, of goods which by reason of their nature, quantity or mode of stowage, are, either singly or collectively, liable to endanger the lives of the passengers or the safety of the ship, shall be forbidden, and,
- (b) that each Administration shall, from time to time, by official notice, determine what goods are to be considered dangerous goods, and shall indicate the precautions which must be taken in the packing and stowage thereof.

2. The International Safety Conference further recommended that every possible effort should be made with a view to attaining an international agreement as to what goods should be considered "dangerous goods" and of fixing uniform rules for the packing and stowage of such goods.

3. Accordingly in 1930, the Board of Trade appointed a Committee to consider the existing Board of Trade "Memorandum relating to the Carriage of Dangerous Goods and Explosives in Ships", and to advise what alterations (if any) were desirable to make the rules laid down in the Memorandum suitable for international adoption, having regard to the provisions of the International Safety Convention, and the recommendation of the Safety Conference.

4. This Committee has now completed its Report which has been published by H.M. Stationery office.* Part I of the Appendix to the Report contains a full statement of the general rules which should be observed when dangerous goods are carried on board ship, and also includes proposals for a new system of labelling and marking packages of dangerous goods in such manner as to indicate not only the substance in the package, but also the risk involved. Part II of the Appendix contains the particular rules of packing and stowage applicable to each individual substance, and states in each case whether the substance should be allowed or not allowed (or allowed only in small quantities) in passenger ships as defined in the Committee's Report. Subject to what is stated below as to marking and labelling (paragraph 6) and passenger ships (paragraph 7), the Board of Trade have decided to adopt the Appendix to the Report in substitution for the existing "Memorandum relating to the Carriage of Dangerous Goods and Explosives in Ships". The principal modifications proposed by the Committee in the present rules are stated in paragraphs 34-45 and 47-51 of their Report.

Substances not included in the Report

5. It should be understood that the substances classified in the Appendix to the Report are not to be regarded as forming a full list of all dangerous goods, and that the non-inclusion of any substances possessing dangerous properties does not relieve those responsible for the shipment

*Report of the Departmental Committee appointed by the Board of Trade to consider the existing Board of Trade "Memorandum on the Carriage of Dangerous Goods and Explosives in Ships."

Canada Shipping Act—continued

of these goods from their responsibility for proper packing and stowage. When it is desired to ship any substance which possesses dangerous properties and which is not provided for in the Report, the case should be submitted to the Board of Trade for consideration.

Marking and Labelling of Packages

6. The Committee's proposals in regard to the marking and labelling of packages of dangerous goods are still under consideration. For the present, therefore, such goods should continue to be labelled and marked in accordance with the existing requirements and practices.

Carriage of Dangerous Goods on Passenger Ships

7. The recommendations of the Committee as to the carriage of dangerous goods on passenger ships are still under consideration, and in due course the Board of Trade will draft rules on the subject as provided by Section 28 of the Merchant Shipping (Safety and Load Line Conventions) Act, 1932.

Carriage of Dangerous Goods on Emigrant Ships

8. The carriage of dangerous goods on emigrant ships remains subject to the provisions of Section 301 of the Merchant Shipping Act, 1894, which prohibits the carriage of any articles which, by reason of the nature, quantity, or mode of stowage thereof are, either singly or collectively, in the opinion of the Emigration Officer, likely to endanger the health or the lives of the steerage passengers, or the safety of the ship. Accordingly, any goods which, under the Committee's recommendations, would not be allowed on passenger ships may not be carried on emigrant ships, and application must always be made to the Emigration Officer for permission to carry goods which, in the Committee's Report, are stated to be such as can only be carried on emigrant ships with the permission of the Emigration Officer.

Packing and Stowage

9. The packing and stowage of dangerous goods and explosives on board ship should in future be as recommended in the Committee's Report.

E. J. FOLEY,

Under Secretary.

Mercantile Marine Department,
Board of Trade,
November, 1933.
Notice No. 130.

Canada Shipping Act—continued

“C”

Ministry of War Transport

M.D. Memorandum No. 4649.

General Minute to

Principal Officers and Surveyors.

M·154702/43

M·9519/44

DANGEROUS GOODS

Amendment No. 1 to Circular No. 1768 on the Carriage of Explosives and other Dangerous Goods in Ships.

POISONOUS SUBSTANCES

With reference to Circular No. 1768 circulated to Principal Officers and Surveyors with covering M.D. Memorandum No. 4628 dated 11th August, 1944, the following amendment is notified, adding rules for packing and stowing certain substances with toxic properties for conveyance by sea. (See also M.D. Memorandum No. 4602 dated 3rd July concerning the marking of such substances.)

AMENDMENT NO. 1

Appendix A

Add to Section III—Aniline Dyes

Ferricyanide of Potash

Paradichlorbenzene

Add to Section IV—Dinitrochlorbenzene

Paranitraniline

Appendix B

Add the following to Section 6, Group B.

ANILINE DYES

Properties: Poisonous and colourless oily liquids which rapidly become brown on exposure to air and light.

Packing and Stowage: In sound kegs stowed away from foodstuffs. All packages should be marked poisonous. May be carried in cargo or passenger ships.

DINITROCHLORBENZENE

Properties: Poisonous crystalline solid having a flash point of over 150° C. Dermatitis is produced by handling the powder, and the fumes and fine dust of the material have a markedly irritant action on the skin.

Packing: (A) In glass, earthenware or tin containers packed in cases with suitable insulating material or, (B) iron or steel drums or casks or (C), provided the substance will remain solid at any temperature likely to be met with under all conditions of transport, paper lined casks or cases. All packages should be marked poisonous.

Stowage: Away from foodstuffs and living quarters. On deck (protected from the rays of the sun) or under deck in a cool well-ventilated space. May be carried in cargo or passenger ships.

Canada Shipping Act—continued

FERRICYANIDE OF POTASH (Potassium ferricyanide or red prussiate of potash).

Properties: Poisonous deep red crystalline solid, soluble in water. By interaction with acids hydrocyanic acid, carbon monoxide and carbon dioxide may be produced.

Packing and Stowage: In strong kegs stowed away from acids and foodstuffs. All packages should be marked poisonous. May be carried in cargo or passenger ships.

PARADICHLORBENZENE

Properties: Colourless or white crystalline solid having a flash point of about 153° C., melting point of 53° C, and boiling point of 174° C. It is poisonous if taken internally.

Packing: (A) For carriage in temperate climates, in sound wooden casks or cases or (B) for tropical climates, in watertight drums. All packages should be marked poisonous.

Stowage: Away from foodstuffs and living quarters in a cool, well-ventilated space. May be carried in cargo or passenger ships.

PARANITRANILINE

Properties: Yellow crystalline solid with a melting point of 148° C. The dust from this substance is likely to cause poisoning and possibly dermatitis.

Packing: (A) In glass, earthenware or tin containers packed in cases with suitable insulating material, or (B) iron or steel drums in casks or (C), provided the substance will remain solid at any temperature likely to be met with under all conditions of transport, strong paper lined casks or cases. Special attention should be paid to the strength and soundness of any casks or cases that may be used. All packages should be marked poisonous.

Stowage: Away from foodstuffs and living quarters. On deck or under deck in a cool space. May be carried in cargo or passenger ships.

W. CARTER.

22nd August, 1944.

M.D. Memorandum No. 4705

M·8062/44

M·9519/44

*General Minute to Principal Officers
and Surveyors*

DANGEROUS GOODS

Amendment No. 2 to Circular No. 1768 on the carriage of explosives and other dangerous goods in ships.

ANHYDROUS HYDROGEN FLUORIDE

Conditions of shipment of anhydrous hydrogen fluoride have recently been under consideration in the Ministry. The Ministry are advised that the liquid and the gas are non-inflammable and, when dry, do not attack most metals and have little action on mild steel. In the presence of

Canada Shipping Act—continued

moisture, however, they will attack metals, glass etc., and have the same general properties as are set out for the aqueous solution on page 85 of the 1933 Report on Dangerous Goods and Explosives. The acid has a strong affinity for water and great heat is evolved when it is diluted with water. The substance is described as being very active physiologically both as liquid and as vapour. This liquid is intensely caustic to the skin and conjunctive, and inhalation of the vapour may cause deep ulcers in the upper respiratory tracts.

It is considered therefore that anhydrous hydrogen fluoride should be classified for shipment as liquified gas suitable for carriage in medium mild steel cylinders dealt with in Section 2, Part II on pages 42 and 43 of the Dangerous Goods Report and that the particular clauses in this section which apply to chlorine should apply equally to this substance.

The following amendment (No. 2) to Circular No. 1768 dated May, 1944 is accordingly notified.

Appendix A Page 58 Add to section II

"Hydrogen fluoride (anhydrous)"

Appendix B page 60, Add

"Note 3. Section 3. Part II. Page 19. After Table 1 insert:
"The general conditions laid down in this Section also apply to anhydrous hydrogen fluoride".

Section 2, Part II, Page 20. In paragraphs 13, 14 and 15 after "chlorine" add "anhydrous hydrogen fluoride".

M. B. A. CHURCHARD.

26th October, 1944.

M.D. Memorandum No. 4715

M·10661/44

M·9519/44

*General Minute to
Principal Officers and Surveyors*

DANGEROUS GOODS

Amendment No. 3 to Circular No. 1768 on the Carriage of Explosives and Dangerous Goods in Ships.

With reference to M.D. Memorandum No. 4705 dated 26th October, the following further amendments to Circular No. 1768 are notified for the information of Principal Officers and Surveyors:—

AMENDMENT NO. 3

Page 2.—Delete the words from "The conditions" on line 3 to end of paragraph.

Appendix A

Section II.—Add—"Chemicals and medicinal preparations in limited quantities in mixed consignments".

Amend reference to "Ethyl chloride" to read "Ethyl chloride (in cylinders or in glass containers)".

Canada Shipping Act—continued

Section III.—Add Charges for foam compound or soda acid fire extinguishers:

Gin.

Medicinal tinctures.

Whisky.

Wool slipe.

Amend reference to "Methyl chloride" to read "Methyl chloride (in cylinders or in glass containers)".

M. B. A. CHURCHARD.

8th November, 1944.

M.D. Memorandum No. 4742.

M·12611/44

M·9519/44

*General Minute to
Principal Officers and Surveyors*

DANGEROUS GOODS

Amendment No. 4 to Circular No. 1768 on the Carriage of Explosives and Dangerous Goods in Ships.

BITUMEN AND BITUMEN CUT-BACKS

The Ministry have recently discussed with the Explosives Storage and Transport Committee and with representatives of Tanker Owners the difficulties of assessing the flash point of bitumen and bitumen cut-backs and the conditions under which these materials may be carried in ships carrying explosives. As a result of these discussions it has been decided to differentiate in the Regulations between (a) bitumen cut-backs containing not more than $17\frac{1}{2}\%$ kerosene (which are regarded as falling outside the category of "inflammable liquids of flash points from 73° F. to 150° F.") and (b) bitumen cut-backs containing more than $17\frac{1}{2}\%$ kerosene or any white spirit or other solvent (which are included in the 73° F. to 150° F. flash point group).

Straight bitumen, which has a high flash point in the region of 300° F. to 400° F. is accepted as non-dangerous and no special stowage conditions are prescribed.

The following amendment to Circular 1768 is accordingly notified.

AMENDMENT No. 4

Appendix A.

Section III.—After—"Inflammable liquids of flash-point from 73° F. to 150° F." add: "(including bitumen, cut-backs containing (1) more than $17\frac{1}{2}\%$ kerosene or (2) any white spirit or other solvent.)"

Section IV.—Add—"Bitumen cut-backs containing not more than $17\frac{1}{2}\%$ kerosene."

The Chamber of Shipping and the Liverpool Steamship Owners Association have been similarly notified.

M. B. A. CHURCHARD.

28th November, 1944.

Canada Shipping Act—continued

“D”

MINISTRY OF WAR TRANSPORT SEA TRANSPORT DEPARTMENT

T. 152 (Sea Transport Regulations—Appendix)

(Revised, May, 1943)

CONVEYANCE OF GOVERNMENT EXPLOSIVES IN FREIGHT SHIPS DURING
THE PRESENT EMERGENCY

(T.M. 101197/41)

NOTE.—The instructions issued in this publication supersede Articles 164-189 and the Tables showing Classification according to Stowage (Explosives Section) also Appendix XII (Form T. 151) which have been omitted from the revised edition of the Regulations for HIS MAJESTY'S SEA TRANSPORT SERVICE (1942).

The following instructions supersede all existing instructions on the stowage of Government Explosives as cargo in Freight Ships during the present Emergency. The term “Explosives” used in these regulations comprises bulk explosives and made up ammunition.

1. Freight Ships.

The term “freight ship” means any merchant ship in which accommodation or space is engaged by the Director of Sea Transport for the conveyance of personnel, horses, or mules, or for the carriage of stores, but which is not allocated exclusively for such purpose.

2. Tankers.

Save in exceptional cases, and when no petroleum mixtures are being carried, and under the special authority of the Director of Sea Transport, no explosives other than those in Group XIII are to be carried in oil tankers. Explosives in Group XIII may be carried, provided the stowage space has been thoroughly cleansed and certified gas free, and is effectively sealed off or ventilated as specified in paragraph 28 (h).

3. Passenger Ships.

For the purposes of these Regulations a passenger ship is defined as a ship in which the number of passengers actually carried exceeds 25, or one tenth of the number of feet in the ship's registered length, whichever is the greater. Explosives other than the following may not be carried in passenger ships:—

- (a) Those defined as safety cartridges in Group VI, Appendix 1, and safety fuze.
- (b) Small samples not exceeding 400 lb. in the aggregate, provided suitable stowage accommodation is available. See paragraph 20 (e).
- (c) The explosives shown in Appendix V may be carried on deck by coastal or cross-Channel ships on short voyages.

4. Definitions.

For the purpose of these Regulations the following definitions are applicable:—

A *hold* is a space contained between two permanent bulkheads.

A *tween deck space* is a closed space between two consecutive continuous decks and bounded by permanent bulkheads.

Canada Shipping Act—continued

A *shelter deck space* is a space situated between the uppermost and second deck which contains no permanent watertight bulkhead.

A *compartment* is a lower hold or a cargo space bounded by permanent bulkheads at each end and having decks with closed hatchways above and below. An insulated chamber, even though situated in a compartment as defined above, shall be deemed a separate compartment.

An *explosive* is any article enumerated in Appendix I.

5. Lightning Protection.

In ships carrying explosives, efficient lightning conductors are to be fitted to wood masts and top masts, also to steel masts where electrical conductivity of the rigging is defective. In steel ships, steel masts must be bonded to the hull, or lightning conductors fitted.

6. Authorized Explosives.

Only explosives which have been authorized by the Home Office or have been approved by a Government department may be carried.

7. Protection against weather.

Special care must be taken during loading and unloading to prevent packages containing explosives being wetted by rain, snow, etc. as their contents may readily become unserviceable. Sunlight has a deleterious effect on explosives either loose or in packages, and protective covering should be provided to prevent direct sunlight falling on the packages for any length of time.

8. Security.

Special measures must be taken by the Master of the ship at loading and unloading ports and also at any intermediate port where the holds containing explosives have to be opened, to ensure the security of Government explosives carried in the ship. Small arm ammunition, grenades, and such like attractive articles need particular attention to prevent pilfering, whilst bulk explosives, bombs, etc., require to be safeguarded against sabotage. The responsibility for the security of the consignment rests with the Master of the ship, and a responsible ship's officer must be present whilst the hatches are off. All explosives must be tallied into and out of the ship.

9. Representative Officer.

The loading and unloading of Government explosives in ships will, in all cases, be conducted in the presence of an Officer of the Service Department concerned, who will observe the manner in which the explosives are being handled and, if necessary, will call the attention of the ship's officer responsible for the operation to any instances of improper treatment, for the purpose of avoiding damage or danger through careless or unsafe handling. The responsibility of the Master for the safe handling and stowage of the explosives is in no way affected by the presence of the Representative Officer.

10. Locking and Sealing Magazines.

The Representative Officer will be responsible for locking all magazines when work is suspended for any reason and when the loading of the magazine has been completed, also for the delivery of the keys to the Master of the ship under sealed cover. He will be responsible that the construction, sealing and venting of special magazines or containers for S.A.S. explosives is efficiently carried out.

Canada Shipping Act—continued

11. Notice of Loading and Unloading.

The government Shipping Agents are responsible that adequate notice of loading is given to the Service Department concerned to ensure the Representative Officer being present before loading begins. The Ship's Agents are responsible that adequate notice of unloading is given to the Service Department concerned to ensure the Representative Officer being present before unloading begins.

Magazines should not be opened before the arrival of this Officer, and other explosive stowage should not be disturbed before he has inspected it. Should exceptional circumstances make it necessary for magazines to be opened, or the stowage of other explosives broken, before his arrival, the Master must inform him and, if necessary, forward a report of the circumstances to the Owners for transmission to the Ministry of War Transport.

12. Marking and Sealing of Packages.

Each package containing Government explosives bears a Government Explosive label, indicating the Service Department to whom it belongs and the storage Group, Appendix I. The label may be replaced by a brand or stencil conveying the same information. The label, brand or stencil is placed in a conspicuous position, usually on the side of the package. (See Appendix III.) In addition, each package has one or two Station Monogram or Inspection labels pasted over the junction of lid and body to form a seal, so fixed that it is impossible to remove the lid without breaking one of the seals. In some cases packages are also sealed with lead seals. Packages having broken sealing labels should be examined and should not be loaded on the ship unless the Representative Officer is satisfied they are safe. If found correct they should be resealed before loading, with fresh labels provided by the Representative Officer. Loose bombs, shells, mines, etc., are not labelled.

13. Doubtful Explosives.

Explosives whose condition has been certified as doubtful by a Service Inspecting Officer will only be carried in ships under the authority of the Service Department concerned, and must not be stowed in a hold containing other explosives or inflammable materials.

14. Defective Packages.

No leaky or badly coopered barrels or defective packages containing explosives should be received on board, and should such be offered for shipment the Master should refuse to receive them and should immediately report the circumstances to the Representative Officer.

15. Opening Packages.

Packages containing explosives in transit must not be opened on board ship.

16. Two or More Services.

Government explosives belonging to two or more Services may be stowed together.

17. Artificial Lighting.

When explosives are being loaded or unloaded, the holds, when necessary, should be lighted by cluster lights, preferably of the double bulb type, secured in suitable positions. Loose or unsecured lights and leads are not to be employed in the hatchway or hold. All such lighting must be examined for serviceability by a responsible ship's officer before loading or unloading commences.

Canada Shipping Act—continued**18. Wireless Working.**

It is forbidden to work the ship's wireless transmitter whilst explosives are being loaded or unloaded, or when the hatches are off the holds containing explosives.

19. Coal Bunkering.

Explosives scheduled for M.S.A., M.S.L. or M.S.B. Stowage (paragraph 25) must not be loaded whilst coal bunkering is in progress.

Coal bunkering should not be carried out when working other types of explosives or whenever the hatches are off the explosive stowage compartments, unless adequate precautions are taken to prevent coal dust reaching the explosives.

20. Position of Stowage.

The position on board ship for the stowage of explosives will be selected in accordance with the following principles:—

- (a) The coolest and most suitable position must be used.
- (b) Explosives will normally be stowed in a lower hold or tween deck space, except as provided in (c), (d), and (f). Certain explosives are, however, permitted to be carried on deck (paragraph 29).
- (c) A poop may be used, whether or not included in the gross tonnage; if not so included, the tonnage openings are to be efficiently closed. Explosives must not be stowed in a poop in which the crew are accommodated or ship's stores are carried.
- (d) A bridge space or shelter deck space other than that abreast the engine and boiler casings may be used (except for explosives requiring S.A.S. stowage) provided that:—
 - (i) The space used for explosives is efficiently bulkheaded off at least 1 ft. from the engine and boiler casings and from the coal bunker hatches or hatches of a hold containing coal, if any. In either of these latter cases the bulkhead must be made gas tight.
 - (ii) It is easily accessible from a hatchway.
 - (iii) Only suitable cargo is stowed in adjacent spaces.
 - (iv) The space contains no crew accommodation or ship's stores.
- (e) Explosives must not be stowed immediately underneath or adjacent to living quarters.
- (f) Insulated spaces in ships may be used for the stowage of explosives subject to the requirements of para. 28, concerning S.A.S. explosives. When explosives requiring M.S.A., M.S.L. or M.S.B. Stowage (paragraph 25) are stowed in such spaces, all pipes and steel work are to be close lined or sparred, as specified in Appendix II.
- (g) Fixed magazines may be erected on suitable cargo provided this is properly levelled off.

21. Conditions of Stowage.

The general conditions of stowage, applicable to all types of Government explosives, are as follows:—

- (a) The stowage space for all explosives, other than S.A.S. explosives, should be dry and well ventilated, and all ventilation shafts leading in to the stowage space must be protected by fine mesh double gauze guards. For special conditions of the stowage necessary for S.A.S. explosives, see paragraph 28.

Canada Shipping Act—continued

- (b) Magazines and stowage spaces must be clean and free from grit, dust, oily waste and rubbish.
- (c) No dangerous cargo must be stowed in the ship in contravention of the regulations referred to in paragraph 34.
- (d) Shale or colliery refuse must not be used as ballast in ships carrying explosives.
- (e) The magazine or stowage space must be completely closed to traffic whilst at sea.
- (f) Packages and loose explosives must be carefully handled and stowed. They must be well secured to prevent movement.
- (g) Unauthorized persons must not be permitted access to the spaces in which the explosives are stowed.

22. Passengers' Baggage.

No explosives are to be carried in a compartment containing passengers' baggage.

23. Approval of Stowage Space.

The position selected by the Government Shipping Agents in conjunction with the owners for the stowage of Government explosives and the construction of any magazines required must have the approval of the Representative Officer concerned with the consignment. The Representative Officer is responsible that magazines and stowage places are thoroughly clean as laid down in paragraph 21 (b) before the loading of explosives commences.

24. Types of Stowage and Code Letters.

The following Table shows the types of stowage prescribed for Government Explosives carried on Freight Ships and also the Code Letters used in Appendix I to indicate the type of stowage required for each item.

<i>Type of Stowage</i>	<i>Code Letters, App. I</i>
Magazine Stowage "A"	M.S.A.
Magazine Stowage "B"	M.S.B.
Magazine Stowage "Lead free"	M.S.L.
Magazine Stowage "D"	M.S.D.
Ordinary Ammunition Stowage	O.A.S.
Pyrotechnic Stowage	A.S.P.
Special Ammunition Stowage	S.A.S.
Deck Stowage, if necessary	(D)
Above Coal Stowage, if necessary	(C)
Respirators to be provided (see para. 41)	(R)

25. Magazine Stowage.

M.S.A. Explosives requiring this type of stowage are mainly in Groups I or II. They require a close lined magazine as described in paras. 4 to 17, 21 and 22, Appendix II.

M.S.B. Explosives requiring this type of stowage are mainly in Groups III and IV. They require a sparred magazine as described in paras. 18 to 20, Appendix II.

M.S.L. Explosives requiring this type of stowage are in Group I and if contaminated by lead in any form may become extremely sensitive and dangerous. They must therefore be kept under lead free conditions. For

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this reason, in addition to requiring the close lined magazine, specified for M.S.A. explosives, the roof also should be close lined. When the latter is not practicable, the packages will be covered by a "lead free" fabric sheet, e.g. a closely woven linen or cotton sheet.

M.S.D. Explosives requiring this type of stowage are usually in Group X and are somewhat sensitive to shock. They require a magazine as described in paras. 23 to 27, Appendix II. If a suitable locker is available it may be used as a detonator magazine. Detonator magazines or lockers must be situated at least 8 feet from the ship's side.

NOTES. 1.—A portable magazine, not exceeding 2 tons measurement, may be used for any of the above explosives, see paras. 25 to 27, Appendix II. If used for detonator stowage, the detonator packages must be the last articles to be stowed.

2. M.S.B. explosives may be stowed in a close lined magazine either alone or with M.S.A. explosives.

3. M.S.B. and M.S.A. explosives may be stowed in an M.S.L. magazine with or without M.S.L. explosives.

4. Safety cartridges, safety fuze or fog signals may be placed in an M.S.D. magazine or locker with M.S.D. explosives. No other explosives may be stowed therein or in the same compartment.

26. Ordinary Ammunition Stowage. O.A.S.

Explosives requiring this type of stowage are in Groups V, VI, VII, VIII and XI, with isolated items from other Groups excepting Group XIII. Magazines are not required. Stowage is to be arranged in accordance with paras. 20, 21 and 32. Non-explosive cargo may be stowed in the same compartment subject to the requirements of para. 34 in regard to Dangerous Goods. These explosives may, if necessary, be stowed above ordinary cargo, but overstowing of the explosives requires the formal approval of the Representative Officer and must be confined to cargo not liable to contaminate or damage the explosives.

27. Pyrotechnic Stowage. A.S.P.

Explosives requiring this type of stowage are in Group IX, and are somewhat susceptible to damage in transit. They must not be overstowed or placed in the same compartment as other explosives except safety cartridges, safety fuze or fog signals. Magazines are not required. The conditions of paragraphs 20, 21 and 32 apply.

28. Special Ammunition Stowage. S.A.S.

Explosives requiring this type of stowage are in Groups XII and XIII with a few items in Group XI; the first named may ignite spontaneously if a defective package permits leakage whilst the others contain chemicals which may cause a dangerous concentration should leakage occur. Their stowage calls for great care and requires suitable provision for dealing with "leakers". The following rules must be observed:—

(a) Paras. 20, 21, 32, 39, 40 and 41 apply.

(b) Magazines are not required for stowage in a deep tank or lower hold, but a 'tween deck space storage will require a special magazine as in paras. 32 to 38, Appendix II, unless the consignment occupies the greater portion of the 'tween deck, whilst for small quantities, not exceeding 35 tons, containers constructed as in paras. 39 to 50, Appendix II, will be used.

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- (c) No other explosives are to be stowed in the same compartment as S.A.S. explosives, except that where Group XII explosives are stowed in an *insulated space* Group V explosives may be stowed with them.
- (d) Group XII must not be stowed in the same compartment as Group XIII or S.A.S. explosives in Group XI, except as in (j) below.
- (e) S.A.S. explosives should, preferably, be stowed in a deep tank or No. I lower hold, but any other below deck stowage may be used, if more convenient. *A shelter deck must not be used.*
- (f) Insulated spaces with steel decks may be used for the stowage of S.A.S. explosives in Groups XI and XII and for shell and loose bombs in Group XIII however, charged, also for other explosives in Group XIII provided they are charged with G. 1 or G. 10. When no other stowage is available, Group XIII explosives charged with G. 1 or G. 10 may be stowed in insulated spaces floored with wood or composition. When S.A.S. explosives are stowed in insulated spaces the refrigerating machinery should be worked on the voyage to reduce the risk of contamination. For this purpose the stowage temperature must not be allowed to rise above 45° F. for G. 1 or G. 10 chargings or 60° F. for Group XII explosives, but for other S.A.S. explosives the temperature is not important.
- (g) Special ammunition stowage must have all hatch covers, ventilators, pump suction, scuppers, etc. effectively sealed off. Insulated spaces together with their internal air ducts not necessary for cooling or ventilation, must also be sealed off.
- (h) Spaces containing Group XIII explosives with G. 1 or G. 10 chemical chargings must have a gas extracting apparatus fitted for the purpose of extracting gas leakage to a point not less than 15 feet above upper deck level, well clear of the bridge and living quarters. This arrangement also applies to insulated spaces.
- (i) Small quantities of less than 35 tons of S.A.S. explosives may be stowed in a suitable 'tween deck space between the ends of the hatches and the transverse bulkheads. Suitable containers as described in paras. 39 to 50, Appendix II, must be used, and they must be effectively sealed off from the compartment. With chemical chargings of G. 1 or G. 10 the container must be fitted with a ventilating pipe to carry any leakage to a point at least 15 feet above upper deck level, well clear of the bridge and living quarters. This ventilating pipe is not *essential* for other S.A.S. chargings in Groups XI or XIII, but is *desirable* and should be fitted, if possible. Eight containers may be stowed in the same space.
- (j) Containers with Group XII explosives may be in the same 'tween deck space as containers with S.A.S. explosives of Groups XI and XIII under the conditions described in (i) above, provided that each group is at opposite ends of the space.

NOTE 1.—The method of marking explosives in Groups XI, XII and XIII is given in Appendix IV.

NOTE 2.—Chemical Defence Preparations should be stowed in a similar manner to Group XIII explosives.

Canada Shipping Act—continued**29. Deck Stowage. (D).**

For the purposes of these regulations, Deck Stowage means stowage on the uppermost deck in a suitable position away from steam pipes, the explosives being protected from weather and spray by tarpaulin covers and from the sun by an awning.

During the period of emergency the stowage of explosives on deck is undesirable and should be avoided. When shipping conditions render this form of stowage necessary it must be confined to those explosives, usually of the heavy Case type, indicated by the letter (D) after the normal stowage code letters in Appendix I.

30. Explosives and Coal.

No explosives are to be carried in a compartment containing coal.

No explosives are to be carried in a 'tween deck space over a compartment containing coal, except those marked (C) in column 2 of Appendix I.

31. Slinging Rules.

Ammunition packages and loose shell up to 6 inch inclusive should be slung on scale boards, trays or floats but never in nets. Handles or beackets should not be used for slinging purposes.

Loose shell above 6 inch should be slung slightly nose heavy, care being taken in the case of capped shell that the sling is clear of the caps and that these are not loosened.

Aircraft bombs when loose, i.e., not in packages, should be slung on scale boards, never in nets. If scale boards are not available they may be slung from the lugs, care being taken to see these are not damaged.

Submarine mines unboxed are to be slung by the lifting loops provided.

Barrels containing explosives are to be slung on scale boards. Nets or slings are not to be used.

32. Methods of Stowage.

Explosives will be stowed in the following manner:—

(a) Loose shell and bombs:—

1. The bottom tier should rest on two broad runners, laid athwartships and sufficiently thick to keep the grummets or lugs clear of the deck. The runners should be at the points of greatest bearing, which, with shell, will be immediately in front of the driving band and at the shoulder.

2. The lower tier of shell should have the grummets hard against one another, the heads being spaced to keep the axes parallel and secured with chocks or dunnage sidepieces on each side. Aircraft bombs should be dealt with in a generally similar manner.

3. The chocks and dunnage pieces referred to in 2 can if necessary be dispensed with for the lower tiers of shell below 8 inch calibre, and also with shell of 8 inch calibre and above when there is only one tier and the shell in this tier are stowed alternatively heads and tails with the grummets taking snugly against the shoulders of adjacent shell.

4. Riding tiers of shell should be reversed, care being taken that the grummets of the riding tier are taking snugly against the shoulders of the two lower shell. Aircraft bombs should not be reversed in this manner.

5. When shell of 8 inch calibre and above are stowed in more than one tier, two broad runners are to be placed below each tier at the points of greatest bearing on the tiers above and below, to ensure that

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the driving bands are not in contact with the shoulders of shell above or below them. In this arrangement each shell must be chocked off securely in a similar manner to those in the lower tier.

6. Wings should be secured by wedges thoroughly driven down.

7. Holding down boards are to be used for single or broken tiers and when shell are not overstowed.

8. Adjacent piles of shell are to be stowed so that the shell are nose to nose and base to base.

9. (a) The number of tiers is not to exceed the following:—

(i) Shell:—		(ii) Aircraft bombs:—	
	<i>Tiers.</i>		<i>Tiers.</i>
above 12 inch..	5	G.P. 500 lb. ...	8
12 inch	6	G.P. 250 lb. ...	10
9·2 inch and 8		G.P. 1,900 lb...	4
inch	8	G.P. 1,000 lb...	5
7·5 inch	9	S.A.P. 500 lb..	9
6 inch	11	S.A.P. 250 lb..	11
Below 6 inch		A.S. 500 lb. ..	3
and above 4		A.S. 250 lb. ..	7
inch	14	A.S. 100 lb. ..	10
4 inch and		A.P. 2,000 lb. .	4
below	16	L.C. 250 lb. (up	
		to 10 ft high).	
		other bombs	
		2,000 lb. and	
		over	3

(b) Depth charges and mine charge cases are to be stowed fore and aft in athwartships tiers on their sides to a height not exceeding six tiers, having broad runners under the bottom tier, the pile to be blocked off similarly to shell.

(c) Submarine mines must not be stowed more than three tiers high.

(d) Light case chemical weapons, if loose, must not be stacked more than two tiers high. They are not to be overstowed.

(e) Barrels must invariably be stowed bilge free and be well chocked off.

(f) Packages containing explosives are to be stowed with their longest axis horizontal, unless otherwise specified.

(g) Boxed ammunition may normally be stacked to a height not exceeding 11-ft. provided, in all cases, that a clear space of not less than three inches is left below the beams of the overdeck.

(h) Army pattern B.L. cartridge cylinders, in skeleton cases, may be stacked horizontally to a height of 11 feet but when skeleton cases are not fitted, the height of the stacks must not exceed 5 feet.

Naval pattern cartridge cylinders may be stacked horizontally up to 11 feet.

Army pattern cartridge cylinders may be stacked vertically to a height of 12 feet.

33. Recording of Temperatures.

When cordite in bulk or in cartridges is conveyed through hot climates, the maximum shade temperatures on deck are to be recorded daily.

Certified copies of these records are to be handed over to the Representative Officer when the cordite is delivered.

Canada Shipping Act—continued**34. Dangerous Goods.**

When dangerous or inflammable substances are loaded in a ship carrying Government explosives these substances must be stowed in conformity with the instructions contained in Sections 2 to 7 inclusive of the Board of Trade Departmental Committee's Report on the Carriage of Dangerous Goods and Explosives in Ships, or any amendment, modification or extension thereof.

35. Use of Hatchways.

The square of the hatchways in the 'tween decks should not, except in special cases, be used for the stowage of explosives, on account of the difficulty experienced in affording adequate protection from enemy aircraft action. Should it become necessary to use this space, protection equivalent to not less than $\frac{3}{32}$ inch steel plate should be placed over the hatch covers. Furthermore, the hatchways on which the explosives are stowed must be made dust-proof to prevent any explosive leakage reaching the hold below.

36. Electrical Fittings.

Electric light, degaussing, or power cables, may be allowed in spaces used for explosive stowage provided that they are in conduits or otherwise suitably protected and that no junction boxes, switches, fuzes, lamp fittings or other similar appliances are within the stowage space.

37. Other Cargo.

Cargo other than explosives, may, if of a kind not otherwise prohibited by these Regulations, be placed in a magazine with explosives, provided that it is separated from them by a close lined partition.

38. Ownership of Magazines.

Magazines will be constructed by the Owners, at Government expense, and will remain Government property. They may be removed or abandoned to the ship by the Government.

39. Decontamination.

When a vessel carrying "S.A.S." explosives reaches an overseas port the stowage space concerned will be inspected by a trained and equipped decontamination party, who will be responsible for supervising the removal of the explosives and for any decontamination action necessary. Special care is necessary in dealing with phosphorus leakage to ensure the *complete removal* of all loose phosphorus. When insulated spaces have been used for explosives charged G. 1 or G. 10, ventilation and lime washing of *all interior surfaces must be carried out immediately* the explosives are removed.

When S.A.S. explosives have been carried, the Master or Agent must arrange for a very careful examination of the stowage place to be carried out, after unloading, by a fully qualified person and, if necessary, to have all interior fittings and linings thoroughly decontaminated. In particular such spaces must not be used for the stowage of food until they have been certified clear of contamination and suitable for such stowage by a fully qualified person.

At home ports, these duties will be carried out under the supervision of the Port Authorities who must be notified, in good time, by the Owners or Agents of the expected date of arrival of the vessel. The Owners or Agent will, however, be responsible that spaces required for the stowage of food have been effectively decontaminated.

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40. Conducting Party.

Explosives in Group XIII (other than shell, however charged, and mortar and ground bombs not charged G. 1 or G. 10) will be accompanied by a conducting party provided and equipped by the Service Department concerned. The strength of the party, also the protective and decontamination equipment to be supplied will be decided by the Service Department concerned.

41. Respirators.

When explosives indicated by the letter (R) in Appendix I, or chemical defence preparations are carried each member of the crew will be provided under arrangements made by the Ministry of War Transport with Service pattern respirators for use on the voyage. Instructions as to their use during the voyage and disposal at the end of the voyage will be issued to the Master in each case by the Ministry of War Transport.

APPENDIX I

CLASSIFIED LIST OF GOVERNMENT EXPLOSIVES IN LAND STORAGE GROUPS (NAVY, ARMY, AIR FORCE) SHOWING THE STOWAGE CONDITIONS REQUISITE FOR EACH ITEM

Group I.—*Stable Explosives bearing an explosion risk and liable to function by spark or friction. Not containing their own means of ignition.*

Designation	Stowage Conditions (See para. 24)
Bursters, H. E. bomb.....	M.S.A.
Bursters, limpets	M.S.A.
Cartridges, Q.F. (separate), gunpowder.....	M.S.A.
Cartridges, impulse, torpedo, gunpowder.....	M.S.A.
Charges, ejection, installation, S.C.	M.S.A.
Charges, gunpowder	M.S.A.
Charges, propelling, discharger, smoke, generator.....	M.S.A.
Charges, propelling 3-inch signal mortar	M.S.A.
Charges, propelling, signal, type "A" apparatus	M.S.A.
Charges, projector, blank	M.S.A.
Composition, exploding, (C.E.)	M.S.A.
Composition, F4	M.S.A.
Composition, illuminating	M.S.A.
Composition, match	M.S.A.
Composition, priming	M.S.A.
Composition, R.D. 202	M.S.A.
Composition, R.D. 1,005	M.S.A.
Composition, rocket, 1-lb.	M.S.A.
Composition, rocket, life saving	M.S.A.
Composition, S.P.G.	M.S.A.
Composition, S.R.C. 2	M.S.A.
Compositions (Type B) S.R.	M.S.A.
Compositions (Type A) S.R.	M.S.A.
Compositions (Type B) P.N.	M.S.A.
Compositions (Type A) P.N.	M.S.A.
Cordtex	M.S.A.
*D.N.R.	M.S.L.
*Di-Nitro-Phenol	M.S.L.
Exploders, bomb, C.E.	M.S.A.
Exploders, shell, C.E.	M.S.A.
Exploders, shell, P.P.	M.S.L.

* D.N.R. containing 40 per cent of water is non-explosive.
D.N.P. containing 15 per cent of water is non-explosive.

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Designation	Stowage Conditions (See para. 24)
Fuze, instantaneous	M.S.A.
Gunpowder	M.S.A.
Igniters, gunpowder	M.S.A.
†P.E.T.N.	M.S.A.
Pentolite	M.S.A.
Picric acid	M.S.L.
Picric powder (P.P.)	M.S.L.
Potassium Dinitrophenate	M.S.L.
Primers, demolition or signal, C.E.	M.S.A.
Primers, depth charge, C.E.	M.S.B.
Primers, mine, C.E.	M.S.B.
Primers, shell, gunpowder	M.S.A.
Primers, warhead, C.E.	M.S.B.
Puffs, gunpowder	M.S.A.
Quickmatch	O.A.S.
‡R.D.X.	M.S.A.
R.D.X.—T.N.T.	M.S.A.
Shellite discs	M.S.L.
**Shellite in 8 oz. samples	M.S.L.
Sodium Picrate	M.S.L.
††Styphnic acid	M.S.L.

*D.N.R. containing 40 per cent of water is non-explosive.

D.N.P. containing 15 per cent of water is non-explosive.

†For bulk transport P.E.T.N. is to be wetted with 30 per cent water.

‡For bulk transport R.D.X. is to be wetted with 10 per cent water.

**In bottles packed in wood wool, in wood cases.

††Styphnic acid containing 40 per cent of water is non-explosive.

Group II.—*Explosives liable to decomposition bearing an explosion risk and liable to function by spark or friction. Not containing their own means of ignition.*

Ballistite	M.S.A.
Blasting gelatine	M.S.A.
Cordite, granular, or flake	M.S.A.
Dynamite	M.S.A.
Fumyl, Mk. III	M.S.A.
Gelignite	M.S.A.
Guncotton, dry	M.S.A.
Neonite	M.S.A.
Nitrocellulose powder (N.C. (Y.), N.C. (Z))	M.S.A.
Nobel's explosive, No. 808	M.S.A.
Primers, depth charge, guncotton	M.S.B.
Primers, warhead, guncotton	M.S.B.
Puffs, cordite	M.S.A.

Group III.—*Explosives liable to decomposition, bearing a fire risk. Not containing their own means of ignition.*

Cartridges, or charges, for ordnance or projectors, filled cordite, ballistite or nitrocellulose powder	M.S.B.
Cartridges, impulse, torpedo, cordite	M.S.B.
Charges, catapult, aircraft, cordite	M.S.B.
Cordite (except granular, or flake, Group II)	M.S.B.
Cordite cylinders	M.S.B.
Cordite cylinders, with igniters	M.S.B.
Nitrocellulose powder (N.C.T.)	M.S.B.
Picrite	M.S.B.

Group IV.—*Stable explosives, bearing a fire or explosion risk. Not containing their own means of ignition.*

Amatol	M.S.B.
Ammonal	M.S.B.
Baratol	M.S.B.
Blocks, demolition, T.N.T.	M.S.B.
Burrowite	M.S.B.
Exploders, bomb, T.N.T.	M.S.B.
Exploders, shell, T.N.T.	M.S.B.

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Designation	Stowage Conditions (See para. 24)
Fumyl, Mk. II	M.S.B.
Fuze, instantaneous, detonating	O.A.S.
Guncotton, wet	O.A.S.
Guncotton, wet, loose	M.S.B.
Minol	M.S.B.
Mixtures, explosive and smoke, No. 4, 5 and 7	M.S.B.
Nobel's Explosive, 704B	M.S.B.
Plastic explosive, (P.E.), R.D. 1031	M.S.B.
R.D.X.—B.W.X.	M.S.A.
T.N.T.	M.S.B.
T.N.T. pressed slabs	M.S.B.
Torpex	M.S.B.

Group V.—*Unboxed shell filled H.E. gunpowder or star composition only.*

Shell, filled, gunpowder, plugged or fuzed	O.A.S.
Shell, filled, H.E., plugged or fuzed	O.A.S.
Shell, filled, practice, plugged or fuzed	O.A.S.
Shell, filled, shrapnel, plugged or fuzed	O.A.S.
Shell, filled, star, plugged or fuzed	O.A.S.

Group VI.—*Boxed ammunition containing H.E. gunpowder and propellants only. With or without their own means of ignition.*

*Apparatus, A.D., other than type D.	O.A.S.
Bombs, A.A.D.	O.A.S.
Bursters, bomb, ground training	O.A.S.
Bursters, bomb, smoke	O.A.S.
Caps, percussion	O.A.S.
Carriers, correspondence	O.A.S.
†Cartridges, aiming rifle	O.A.S. (C)
Cartridges, bomb, release gear	O.A.S. (C)
Cartridges, electric, actuating-flotation gear	O.A.S.
Cartridges, electric, disc, S.C.I.	O.A.S.
Cartridges, electric, valve, S.C. type S/G and S.C.I.	O.A.S.
Cartridges, engine, starter	O.A.S.
Cartridges, impulse, torpedo, Cordite (With Primer)	O.A.S.
Cartridges, impulse, torpedo, Gunpowder (With Primer)	O.A.S.
Cartridges, lowering undercarriage	O.A.S.
†Cartridges, M.L., depth charge thrower	O.A.S. (C)
†Cartridges, M.L. mortar	O.A.S. (C)
Cartridges, percussion, cable cutting	O.A.S. (C)
Cartridges, pistol, grenade	O.A.S. (C)
Cartridges, pistol, safety fuze	O.A.S. (C)
†Cartridges, rim fire	O.A.S. (C)
Cartridges, ripping, link	O.A.S. (C)
†Cartridges, rocket, schermuly	O.A.S. (C)
†Cartridges, small arm, ball	O.A.S. (C)
†Cartridges, small arm, blank	O.A.S. (C)
Cartridges, small arm, H.E.	O.A.S. (C)
Cartridges, small arm, H.E./Incendiary	O.A.S. (C)
Cartridges, small arm, incendiary	O.A.S. (C)
†Cartridges, small arm, tracer	O.A.S. (C)
Cases, cartridge, capped	O.A.S. (C)
Charges, priming, demolition	O.A.S.
Destructors, contact	O.A.S.
Destructors, Tora	O.A.S.
Ejectors, electric	O.A.S.
Fuzes, electric	O.A.S.
Fuzes, for shell, bomb, or flare	O.A.S. (C)
Fuze, safety	O.A.S. (C)
Fuzes with bursters	O.A.S.

* This ammunition is to be stowed with the head close to a bulkhead.

†Safety Cartridges as defined by Home Office.

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Designation	Stowage Conditions (See para. 24)
Gaines	O.A.S.
Grenades, hand, clay	O.A.S.
Heads, T-Cutters	O.A.S.
Igniters, electric	O.A.S.
Igniters, fuze	O.A.S.
Igniters, grenade	O.A.S.
Igniter mechanisms	O.A.S.
Igniters, percussion	O.A.S.
Igniter sets, for grenades, without detonators	O.A.S.
Lighters, safety fuze	O.A.S.
Links, explosive	O.A.S.
Pistols, Type S.	O.A.S.
Primers, electric	O.A.S.
Primers, electric and percussion	O.A.S.
Primers, percussion	O.A.S.
Projectiles, hedgehog, weighted	O.A.S.
Q.F. Ammunition filled. H.E. Shrapnel, Star, or Practice	O.A.S.
Q.F. (Separate) Cartridges	O.A.S.
Shell, H.E., rocket, "U"	O.A.S.
Shell filled, H.E. Shrapnel, Star or Practice	O.A.S.
Signals, fog	O.A.S. (C)
*Tail, propelling, rocket, "U"	O.A.S.
Trip mechanisms	O.A.S.
Tubes, electric	O.A.S. (C)
Tubes, friction	O.A.S. (C)
Tubes, percussion	O.A.S. (C)

*This ammunition is to be stowed with the head close to a bulkhead.

Group VII.—*Mines, Bombs and underwater ammunition, filled, H.E., plugged with or without components in their packages*

Bangalore Torpedoes	O.A.S.
Blocks, T.N.T. for L. Mines	M.S.B.
Bombs, aircraft	O.A.S.
Bombs, (dummy) fitted with exploders	O.A.S. (D)
Bombs, underwater	O.A.S.
Chariots	O.A.S.
Charges, demolition	O.A.S.
Charges, depth	O.A.S.
Heads, paravane, explosive	O.A.S.
Mines, cases, charge	O.A.S.
Mines, contact, A.T.	O.A.S.
Mines, submarine	O.A.S.
Paravanes	O.A.S.
Squids	O.A.S.
Warheads	O.A.S.

Group VIII.—*Mortar ammunition and grenades, boxed or unboxed, containing H.E. and propellants only, with or without components in their packages.*

Ammunition for mortars, (complete rounds, filled H.E. or gunpowder)	O.A.S.
Bombs, practice, mortar	O.A.S.
Bombs, star, mortar	O.A.S.
Bursters, drum, with detonator	O.A.S.
Grenades, filled, H.E.	O.A.S.

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Designation	Stowage Conditions (See para. 24)
Mines, shrapnel	O.A.S.
Petard	O.A.S.
Projectiles, hedgehog	O.A.S.

Group IX.—*Pyrotechnics.*

Ammunition, signal, mortar	A.S.P.
Apparatus A.D., type D	A.S.P.
Bombs, practice, A.R.P. incendiary	A.S.P.
Bombs, practice, flash, aircraft	A.S.P.
Boxes, smoke, S.R. 568	A.S.P.
Cartridges, audible, mine, firing indicator	A.S.P.
Cartridges, flash	A.S.P.
Cartridges, illuminating	A.S.P.
Cartridges, signal	A.S.P.
Cartridges, signal, brown smoke puff	A.S.P.
Cartridges, signal, white smoke puff	A.S.P.
Crackers, blank	A.S.P.
Charges, ejection, bomb, ground	A.S.P.
Flares, beach	A.S.P.
Flares, deck	A.S.P.
Flares, ground	A.S.P.
Flares, identification	A.S.P.
Flares, illuminator	A.S.P.
Flares, landing	A.S.P.
Flares, reconnaissance	A.S.P.
Flares, signal	A.S.P.
Flares, target	A.S.P.
Flashes, photographic	A.S.P.
Fuzes, destruction	A.S.P.
Grenades, parachute flare	A.S.P.
Grenades, rifle, signal, night	A.S.P.
Grenades, signal No. 65	A.S.P.
Igniters, shell	A.S.P.
Igniters, smoke	A.S.P.
Lights, illuminating wreck	A.S.P.
Lights, service	A.S.P.
Pellets, magnesium mixture	A.S.P.
Portfires, common	A.S.P.
Projectiles, signal, multi-star	A.S.P.
Rockets	A.S.P.
Rockets, flash and sound	A.S.P.
Rockets, illuminating	A.S.P.
Rockets, kite	A.S.P.
Rockets, practice	A.S.P.
Rockets, schermuley, parachute, flare	A.S.P.
Rockets, signal, multi-star	A.S.P.
Shell, star, magnesium	A.S.P.
Signals, distress	A.S.P.
Signals, underwater, exploding	A.S.P.
Signals, vertical ray	A.S.P.
Simulators, gun flash	A.S.P.
Star cases, filled, for star shell	A.S.P.
Thunder-flashes	A.S.P.
Tracers	A.S.P.

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Designation	Stowage Conditions (See para. 24)
Group X.— <i>Detonators.</i>	
Burster, or igniter, sets	M.S.D.
Detonators	M.S.D.
Detonators, bursters	M.S.D.
Fuze, mine, contact A.T. No. 2	M.S.D.
Signals, underwater	M.S.D.
Fulminate of mercury, wet	Carriage by sea is prohibited.
Fulminate of mercury, wet 1-oz. sample	
Lead Azide, wet or dry, 1-oz. sample	
Lead Styphnate, dry, 1-oz. sample	
Group XI.— <i>Incendiary and smoke ammunition. <u>Not containing white phosphorus, with or without components in their packages.</u></i>	
Bombs, H.E. incendiary	O.A.S.
Bombs, incendiary	O.A.S.
Bombs, smoke	O.A.S.
Bombs, smoke F.M.	S.A.S. (R)
Bombs, smoke C.S.A.M.	S.A.S. (R)
Candles, smoke, red	O.A.S.
Candles, smoke, yellow	O.A.S.
Compositions (Type D) S.R.	O.A.S.
Compositions (Type C) S.R.	O.A.S.
Compositions (Type D) P.N.	O.A.S.
Compositions (Type C) P.N.	O.A.S.
Floats, smoke and flare	O.A.S.
Generators, smoke	O.A.S. (R)
Grenades, rifle, daylight, signal	O.A.S.
Grenades, smoke	O.A.S.
Grenades, smoke F.M.	S.A.S. (R)
Grenades, smoke C.S.A.M.	S.A.S. (R)
Igniters, torpedo	O.A.S.
Mortar ammunition, smoke	O.A.S. (D)
Mortar ammunition, smoke F.M.	S.A.S. (D) (R)
Q.F. ammunition, smoke C.S.A.M.	S.A.S. (D) (R)
Puffs, smoke	O.A.S.
Q.F. ammunition, smoke	O.A.S. (D)
Shell, smoke	O.A.S. (D)
Simulators, bomb	O.A.S.
Smoke, floats	O.A.S.
Group XII.— <i>Ammunition <u>containing white phosphorus with or without components in their packages.</u></i>	
Bombs, incendiary	S.A.S. (R)
Bombs, incendiary, 250 lb. fuze	S.A.S. (R)
Bombs, smoke	S.A.S. (R)
Cartridges, S.A. incendiary, B. Mk. IV and IV*	O.A.S. (R)
Cartridges, S.A. indicating, R.	O.A.S. (R)
Cartridges, S.A. observing, O.	O.A.S. (R)
Cartridges, S.A.A., in belts, mixed with B., O., or R. types	O.A.S. (R)
Grenades, smoke	S.A.S. (R)
Mortar ammunition, smoke	S.A.S. (D) (R)
Q.F. ammunition, smoke	S.A.S. (D) (R)
Shell, smoke	S.A.S. (D) (R)

Canada Shipping Act—continued

Group XIII.—*Chemical ammunition. With or without components in their packages.*

Bombs, chemical	S.A.S. (R)
Bombs, ground	S.A.S. (R)
Bombs, H.E./Chemical	S.A.S. (R)
Bottles, chemical	S.A.S. (R)
Drums, projector, chemical	S.A.S. (R)
Floats, lachrymatory	S.A.S. (R)
Generators, chemical	S.A.S. (R)
Generators, lachrymatory	S.A.S. (R)
Grenades, chemical	S.A.S. (R)
Installations, S.C.	S.A.S. (R)
Mines, chemical	S.A.S. (R)
Mortar ammunition, chemical	S.A.S. (D) (R)
Shell, chemical	S.A.S. (D) (R)

APPENDIX II

SPECIFICATION FOR THE CONSTRUCTION OF MAGAZINES

1. The following rules are to be observed in the construction of magazines required by the above regulations and supersede those contained in Appendix XII, page 185, of H.M. Sea Transport Regulations.

2. *Position.*—Magazines may be fitted in any part of the ship conforming with the conditions laid down in paras. 20-23 and para. 30 of these Regulations, but they must be so placed that their doors are easily accessible from a hatchway.

3. *Materials.*—Except where otherwise specified in these rules, magazines are to be constructed of wood, using clean undressed timber. Timber sizes given below are for general guidance only and the use of other sizes, depending on material available, is not precluded. Nails used for fastening timber are to be of galvanised iron.

4. *Magazine Type A.*—This type of magazine is required for stowage of explosives denoted by the letters M.S.A. or M.S.L. in Appendix I.

5. The magazine is to be a space of the required size, normally in tween deck or shelter deck, enclosed by partitions constructed of 1½-inch close fitting boards secured internally to 3-inch by 3-inch uprights spaced 2 feet apart running from deck to deck and firmly secured top and bottom. When the height of the deck exceeds 8 feet uprights should be spaced not more than 18 inches apart. When built on steel or iron decks the heels of the uprights are to be stepped on and secured to a board 1 inch thick laid on the deck.

6. The boarding of these partitions is to run from upright to upright on the inside of the magazine extending from deck to deck and fitting closely between the beams and to be fastened securely by 3-inch nails, three to each board on each upright.

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7. Boards 9-inch by 1½-inch to be securely fastened to the outside of the uprights at the upper and lower ends for securing heads of shores when required. The space formed between the lower board and the partition boards is to be filled in.

8. The ship's sides and/or hold bulkheads may, if necessary, be used as the sides of the magazine, but in this case the ship's side and steel bulkhead must be close lined with 1½-inch boards up to the beams.

9. The flooring of magazines of this category is to consist of close fitting 1½-inch board secured over 3-inch by 2-inch bearers spaced 18 inches apart.

10. All pillars, stanchions, ventilator shafts and all other iron work in the magazines are to be close sheathed with wood or other suitable material.

11. Where required for the stowage of explosives requiring lead free conditions (denoted by the letters M.S.L. in Appendix I) the deckhead over the magazine must be lined with close fitting 1-inch boarding secured under the beams. In other cases the deckhead need not be lined but care is to be taken that the beams and underside of deck are well painted and are free from rust, scale and loose paint.

12. One or more doorways according to the size of the magazine, at least 4 feet wide, are to be fitted in the side of the magazine facing the hatchway with a 3-inch by 3-inch cant piece fitted and secured at the lower part to form a sill for the full width of the doorway, the top edge being 1-inch above the bottom boards. The framing of the doorway should leave a 1½-inch rabbet on the inside of the magazine, formed by the uprights and the lining. An additional thickness of 2 inches is to be secured to the uprights on each side of the doorway to a height of 2 feet 6 inches for the lower part of the door to run on; these additional pieces to be snapped off from front to back for a distance of 6 inches down from the top.

13. The door may be made in one or two parts. If of two parts, the door is to be formed of two thicknesses of 1½-inch boards, the lower part to be 3 feet in height and to be shipped from the inside, the upper part to be of such height as is necessary and to be shipped from the outside. The boards forming the upper part of the door are to be well fastened together crosswise by nails, having their points turned on the inside and punched in, the inner boards to fit the width of the doorway and to extend 5 inches beyond the upper edge of the outer boards and 2 inches beyond the lower edge. Both ends of the outer boards are to extend 3 inches beyond the sides of the inner boards forming reverse rabbets.

14. The boards forming the lower part are to be secured to and kept 3 inches apart by fir scantling 3 inches by 3 inches extending from 1 inch above the bottom to within 2 inches of the top and placed 2½ inches in from each end of the outer boards, the length of the outer boards to be of the width of the doorway and the inner boards to extend 1½ inches beyond the outer boards at each end.

15. Two hand-holes for lifting purposes are to be cut through both the inner boards of the lower part and the outer boards of the upper part. When both parts of the door are in place the space between the top of the upper part and the lower edge of the shoring board is to be filled in with a 1½-inch board securely fastened to the uprights.

Canada Shipping Act—continued

16. A 3-inch by 3-inch stanchion is to be securely wedged between deck at the middle of the door and tommed off to prevent shifting. The section of this stanchion should be increased as necessary if heavy packages are stowed in the magazine.

17. If a one piece door is fitted it is to be of similar construction and fitting to the upper door section referred to above. Where insulated spaces are used as magazines the hinged insulated door should be utilized.

18. *Magazine Type B.*—This type of magazine is required for the stowage of explosives denoted by the letters M.S.B. in Appendix I.

19. The magazine is to be similar in construction to Magazine Type A, except that where the sides of the magazine consist of the ship's sides and/or hold bulkheads these should be lined with cargo battens not more than 6 inches apart. Where cargo battens are already fitted and are more than 6 inches apart filling pieces are to be provided. Where no cargo battens are fitted temporary battens 6 inches by 2 inches spaced 12 inches apart, centre to centre, should be provided.

20. The flooring of this category of magazines where not built on cargo is to consist of sparred gratings constructed of 3-inch by 1-inch spars spaced 3 inches apart nailed to 3-inch by 1-inch cross spars of bearers spaced 12 inches apart. These gratings are to be portable to allow access for cleaning and in sections of a size suitable for passing through the doorway.

21. *Fixed Magazines on Cargo.*—When it is necessary to build a magazine on cargo, the selected place is to be levelled and the floor formed of 3-inch by 3-inch quartering placed 2 feet apart and covered with close fitted 1½-inch boards securely nailed. Uprights 3 inches square, 2 feet apart, are to be run from the boards to the deck above, to fit tight and be well driven in, cleated at the bottom and well tommed off at the top.

22. The remainder of the magazine is to be constructed as specified above for a magazine Type A or B except that in the case of the latter the ship's sides and/or hold bulkheads must be close lined with 1½-inch boards up to at least 3 feet above the level of the floor, the ship's sides etc. above this being sparred.

23. *Detonator Magazine.*—This may be either a fixed magazine or a portable magazine as described in the succeeding section, and is required for the stowage of explosives denoted by the letters M.S.D. in Appendix I.

24. A fixed magazine of this category is to be constructed in a similar manner to that prescribed above for Magazine Type B, except that it must be placed at least 8 feet from the ship's side.

25. *Portable Magazine.*—This may be used in lieu of a fixed magazine for detonators, or for explosives denoted by the letters M.S.A. and M.S.L. or M.S.B. in Appendix I when the quantities do not justify the construction of a fixed magazine, but the capacity must not exceed 2 tons measurement.

26. A portable magazine is to be made to the size required in accordance with the dimensions of the packages to be stowed therein and consists of a frame, made of 3-inch by 2-inch quartering floored and boarded up on the inside with 1½-inch boarding with a similar top and lid fitted with cleats on the inside to keep it in its place when shipped.

Canada Shipping Act—continued

27. Portable magazines when stowed must be securely chocked off and if containing detonators must be stowed at least 8 feet from the ship's side.

28. *Locking.*—Magazines of all types are to be secured by strong padlocks of the Yale type, with hasps and staples of metal or galvanized iron.

In the case of portable magazines efficient locking is to be effected by a locking plank placed across the movable portion of the lid and secured by padlocks of the Yale type to staples in the fixed portions of the magazines, these staples being clinched over on the inside to ensure that they cannot be prized off.

29. *Ventilation.*—Fixed magazines are to be efficiently ventilated, but any deck ventilator leading into the magazine is to have double fine mesh wire gauze guards fitted in the ventilator coaming, or otherwise be fitted with a "Lawson" fireproof cowl or other efficient fire proof covering.

Compartments in which a portable magazine is stowed are also to be efficiently ventilated and ventilators protected as above.

30. *Shoring and Securing.*—Magazines, when not blocked off at the sides by other cargo, are to be efficiently tommed off. When a magazine measures athwartships more than 40 feet, a fore and aft bulkhead must be fitted on the centre line to facilitate blocking off packages in the magazine. This bulkhead is to be constructed of 3-inch by 3-inch uprights 3 feet apart extending from deck to deck, secured top and bottom as for side partitions and lined up with 1-inch boarding not more than 6 inches apart placed alternately on either side of the uprights. The ship's permanent stanchions may be used in lieu of temporary uprights when they are suitably placed and not more than 6 feet apart.

31. *Steel or Iron Magazines.*—When necessary to fit a permanent cargo magazine in a ship, this may be constructed of iron or steel but in this case the whole of the interior is to be thoroughly protected by paint, varnish, galvanizing or other suitable coating and also close or sparred lined with wood as described above according to the nature of the explosives to be stowed.

32. *Stowage of medium and small quantities of Groups XII and XIII Explosives.*—When the quantity of Group XIII explosives to be stowed exceeds 35 tons but is insufficient to justify the use of a deep tank or No. 1 lower hold, a special magazine of the type described in paras. 33 to 38 will be constructed in a tween deck space to accommodate the consignment and prevent the escape of leakage from the packages.

33. A tween deck space forward should be selected and, for preference, the smallest and furthest from accommodation, bunker, stokehold or engine room spaces. The site of the magazine should be such as to exclude ventilators, vent shafts, electric cables, trimming hatches and scupper pipes, from the enclosure. A wood deck should not be used nor, if it can be avoided, a wood-sheathed deck. The shipside or an end bulkhead may be used to form the sides of the magazine.

34. The magazine is to be an enclosure of the required size constructed of 3-inch by 3-inch uprights spaced 2 feet apart running from deck to deck and lined internally with two thicknesses of $\frac{5}{8}$ -inch boarding with a layer

Canada Shipping Act—continued

of unbleached calico worked between. The $\frac{5}{8}$ -inch boarding is to be worked horizontally, close fitting and with the edges breaking joint as shown in Plate I. The deckhead is to be similarly lined, the boarding being fitted on the underside of the beams.

35. The uprights are to be stepped on 1 inch planking well bedded in glazier's putty and firmly secured top and bottom, 11-inch by $1\frac{1}{4}$ -inch boards being securely fastened on the outside at the upper and lower ends for securing heads of shores when required. A cement fillet at least 6 inches in height is to be worked round the whole of the inside of the magazine where the sides take on the deck. The cement should if possible be treated with sodium silicate (waterglass) when partly dry or alternatively an "Asplit" type of cement may be used.

36. A doorway 4 feet wide and 5 feet high is to be fitted in the side of the magazine facing the hatchway, the bottom of the doorway being at least one foot above the level of the deck. The door is to be hinged, opening outwards and constructed of a substantial framework with lining similar to that used for the walls of the magazine. The edges of the door and doorway frame are to be made so as to form a plug joint and should be lined with good quality felt. Securing arrangements are to consist of three butterfly nuts fitted to the doorway frame to take on appropriate fittings on the top, bottom and side of the door (see details in Plate I).

37. The tween deck space must be sealed off in accordance with para. 28 (g) of the Regulations.

38. When Group XIII explosives charged with G.1 or G.10 are stowed in such magazines a 3-inch ventilating pipe is to be let into the deckhead, through the lining and into the magazine. It must extend through the upper deck to a point at least 15 feet above upper deck level, well clear of the bridge and living quarters.

39. When the quantity of explosives *does not exceed 35 tons*, approximately, special containers of the following types may be used as specified in para. 28 (i) of the Regulations. They may be of the built up or portable type.

40. The built up type is illustrated in Plate II_A and should be constructed mainly of 4-feet by 4-feet light pressed steel units, suitable for assembly in situ. The units are to be not less than $\frac{1}{8}$ inch thick, with continuous flanges for external bolting. The lid is to consist of two 4-feet by 2-feet end units with centre 4-feet by 4-feet units as required. These units to be of $\frac{1}{8}$ inch flat steel plate, suitably stiffened. The end units must be bolted in position before loading to prevent distortion. The centre units to be well bolted down along the sides and joints after loading.

41. The containers may be assembled 8, 12 or 16 feet long, according to the quantity of explosives to be stowed, and are to be gas tight. A suitable plastic jointing compound approved by the Ministry of War Transport will be used throughout to effect a seal. The interior is to be painted with a non-corrosive paint complying with the Lead Poisons Act, 1926, as regards freedom from lead.

42. The 2-feet end units of the lid are to be fitted with a two inch socket and a plug, the socket being suitable to take a pressure test apparatus or a ventilating pipe. Each end unit of the body is to be fitted with a 1-inch drain plug, low down, about the centre.

Canada Shipping Act—continued

43. The container is to be tested to an air pressure of 5 lbs. before stowing the explosives and no leakage should occur.

44. When *very small quantities* of S.A.S. explosives are to be stowed a portable container, as illustrated on Plate IIb, may be used.

45. The portable container should be approximately 5 feet by 2 feet 9 inches by 2 feet. It is to be constructed of plate not less than $\frac{3}{16}$ inch thick. The bottom and ends are to be in one piece, with the edges suitably mitred for welding and flanged to form an efficient lap for securing the sides. If riveting is used, the rivets should be at water tight spacing.

46. A continuous boundary bar of 2-inch angle is to be fitted on the outside 1 inch below the top and efficiently secured to the container. Four 2-inch angle bar stiffeners are to be fitted round the container as shown, one at each end, the others equally spaced as shown. These stiffeners are to be properly secured in position and welded at their upper ends to the boundary bar, the upper standing flanges being snapped off.

47. The lid is to be of $\frac{3}{16}$ inch plate and is to extend for $1\frac{1}{2}$ inches beyond the sides of the container. A $\frac{1}{2}$ inch rubber strip, or similar jointing material is to be secured to the underside of the lid by $\frac{1}{2}$ inch steel strip to engage the upper edge of the body and form a gas tight joint. The lid is to be provided with suitable hinges and secured by 18 butterfly nuts and fittings, i.e. six down each side and three at each end.

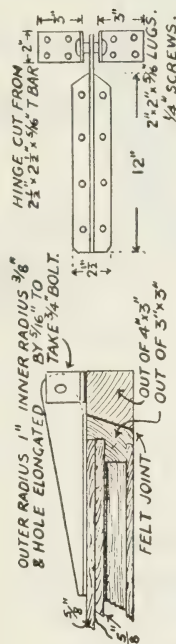
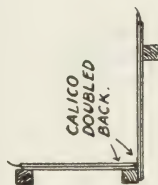
48. A 2-inch socket, with plug, suitable for a pressure test apparatus or ventilating pipe is to be provided in the lid, and a drain plug, 1-inch diameter, at the bottom of the container, as shown. At least four lifting points, with suitable shackles, are to be fitted in the standing flanges of the stiffeners.

49. The interior is to be painted with an anti-corrosive paint complying with the Lead Poisons Act, 1926, as regards freedom from lead.

50. Before stowing the explosives, the container is to be tested for air tightness to a pressure of 5 lbs. and no leakage should occur.

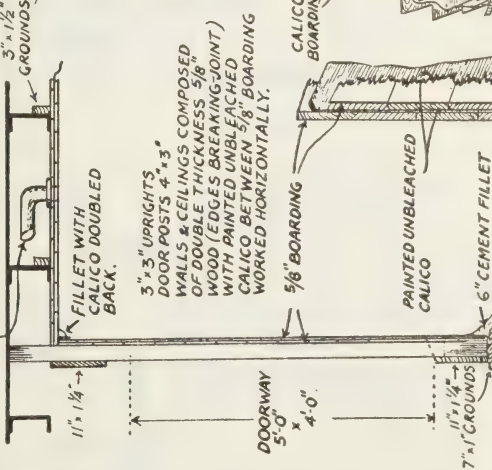
51. *Magazine Specification.*—Alternative arrangements to those set out in paras. 32 to 50 may be adopted provided they are approved by the Ministry of War Transport as being equally effective.

SECTION THRO' CORNERS.



DETAIL OF HINGE.

3" DIAM. VENTILATOR CARRIED 15'-0" ABOVE TOP DECK CLEAR OF NAVIGATING BRIDGE & CREW QUARTERS.



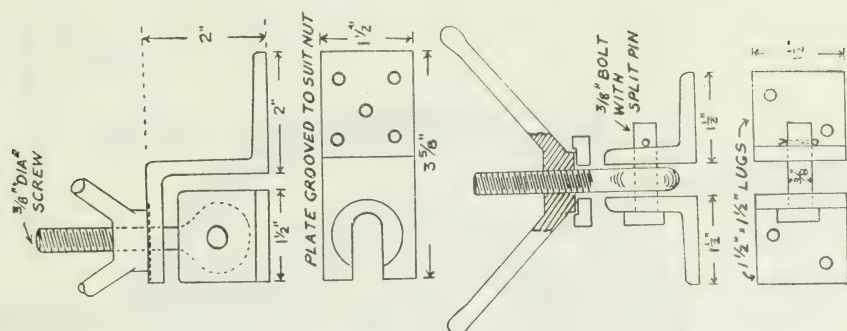
SECTIONAL ELEVATION.

ELEVATION OF DOOR.



PLAN OF DOOR.

DETAILS OF BUTTERFLY FASTENINGS.



Canada Shipping Act—continued

PLATE II

A.

FABRICATED CONTAINER

NOTE.—CONTAINERS CAN BE FABRICATED IN LENGTHS, 8'-0", 12'-0", 16'-0"
3/16" STEEL PLATES, 5/8" DIAM. BOLTS.

(1) COMPOSED OF 5 PLATES (4" CONTAINER)
END PLATES 2'-1/2" LONG, OTHER 3'-4" LONG.

EXHAUST PIPE CARRIED 15'-0" ABOVE
TOP DECK, CLEAR OF NAVIGATING BRIDGE AND CREW QUARTERS
(BUSH" SUITABLE FOR NUMBER OF CONTAINERS VENTED)

2" DIAM. EXHAUST PIPE

2" DIAM. EXHAUST HOLES IN END PLATES
WITH SCREW PLUGS

ROLLED ENDS FITTED TOP
AND BOTTOM OF ALL CONTAINERS
TO ENSURE GAS TIGHTNESS

TOP PLATES RE-IMPORTED WITH
1/2" A 7/8" FLAT BAR COLUMNER
SIDE WELDED

SIDES AND ENDS EXTERNALLY
FLANGED

BOTTOM SECTIONS (INTERNAL FLANGE)
HAVE 1/2" A 3/4" FLAT BAR WELDED
AROUND TO TAKE BOLTS.

—VERTICAL SECTION—

—HORIZONTAL SECTION—

3/2" A 3/4" TOP BUTT STRIPS WITH
5/8" DIAM. STUD BOLTS 2" APART.
TOP PLATES AND HINGED STEEL ENDS
WELDED TO TAKE BOLTS.
1/2" A 3/4" FLAT BAR STIFFENING
WELDED TO TOP PLATES.
BOLT HEADS WELDED TO FLAT BAR.

—DETAIL OF TOP PLATE CONNECTIONS.—

B.

PORTABLE CONTAINER

EXHAUST PIPE CARRIED 15'-0" ABOVE TOP DECK
CLEAR OF NAVIGATING BRIDGE AND CREW QUARTERS
(BUSH" SUITABLE FOR NUMBER OF CONTAINERS VENTED)

2" DIAM. EXHAUST PIPE

2" DIAM. EXHAUST HOLES WITH SCREW PLUGS

2" A 3/4" CONTINUOUS
STIFFENING FLANGE
1" FROM TOP OF TANK

3/4" PLATING

COVER HINGE
ON JAWL ARREST
LOCATED 15'-0" TO
TAKE VICE BOLT

FLAT WELD

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

DETAIL OF HINGE
1/2" A 3/4" RUBBER STRIP

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
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WELD BOLTS

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WELD BOLTS

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WELD BOLTS

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1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

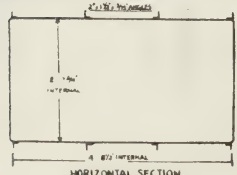
1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

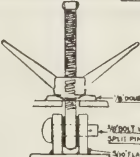
1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS

1/2" A 3/4" RUBBER STRIP MOUNTED BY
1/2" A 3/4" STEEL STRIP AND
WELD BOLTS



HORIZONTAL SECTION



VERTICAL SECTION



COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

COVER HINGE FASTENED BY 1/2" A 3/4" RUBBER STRIP MOUNTED BY 1/2" A 3/4" STEEL STRIP AND WELD BOLTS

Canada Shipping Act—continued

APPENDIX III



*W.D. for War Department Explosives—Army Explosive

R.A.F. for Air Ministry Explosives—Air Force Explosive

R.N. for Admiralty Explosives—Naval Explosive

+Printed in Red, as shown, on coloured paper as follows—

Blue for Army Explosive.

Brown for Air Force Explosive.

White for Naval Explosive.

NOTE.—Certain Naval packages carry a label on which a double classification figure appears thus $\frac{3}{1}$. The numerator denotes the general classification as shown in Appendix I, the denominator indicates a special classification on board H.M. ships.

ADDITIONAL NOTE.—Packages may have the above symbol stencilled or branded, at the discretion of the Service Department concerned.

APPENDIX IV

MARKING OF GROUPS XI, XII AND XIII EXPLOSIVES

1. All explosives in Group XI are painted Green.

Those charged Titanium tetrachloride are marked F.M.

Canada Shipping Act—continued

Those charged Chlorosulphonic acid mixture are marked C.S.A.M.

2. All explosives in Groups XII are painted Green.

With the exception of the Cartridges S.A. all are marked P.H.O.S.

3. All explosives in Group XIII are painted Grey.

Those filled with Y gases have a yellow band also the letter Y and numeral.

Those filled with G gases have a green band also the letter G and numeral.

Those filled with B gases have a black band also the letter B and numeral.

Additional bands of white and red may also be found on these explosives but the governing colours for stowage are yellow, green and black. The letters Y, G, and B, with appropriate numeral are in black.

4. When explosives in Groups XI, XII or XIII are in packages the above markings and colour scheme is applied to the packages.

APPENDIX V

The following types and quantities of explosives may be carried on the deck of coastal and cross channel passenger ships on short voyages:—

(a) 10 cwt. of Group VI.* }
 OR } in Service packages.
 1 cwt. of Group IX,* }

OR

200 detonators, Group X; in Approved Metallic packages.

AND

(b) 50 lbs. nett of any one of the follow- }
 ing:— Cordite, Neonite, Ballistite, }
 Nitro-cellulose powders. }
 OR }
 10 lbs. nett of any one of the follow- }
 ing:—Amatol, Ammonal, Baratol, } Packed in
 C.E., D.N.P., Guncotton, T.N.T., } Approved
 R.D.X.-B.W.X., R.D.X.-T.N.T., plas- } Metallic
 tic explosive (P.E.) R.D. 1031. } Packages.
 OR }
 10 lbs. nett of explosives in Group }
 VI* or IX.* }

*Except any of the following explosives which may *not* be carried on passenger ships:—

Apparatus A.D. other than Type D.	} Group VI
Bombs, A.A.D.	
Tails, propelling, Rocket "U"	
Destructors, contact	
Apparatus, A.D. Type D. Group IX.	

Canada Shipping Act—continued

Stowage Memo.
No. 2

T.M. 17498/ST/GEN. 2
S.T. Memorandum (New Series)
No. 16 (Home)
No. 16 (Abroad)

T.152 (SEA TRANSPORT REGULATIONS APPENDIX)

Supplement No. 1 (April, 1944)

Attached for your information and guidance is a copy of Supplement No. 1 to T-152—"Conveyance of Government Explosives in Freight Ships during the present emergency".

It is important that these regulations should be observed in all those ships on S.T. service for which the loading responsibility rests with the Sea Transport Officer, except when departure from the regulations is essential to comply with operational requirements. Whenever such relaxation is contemplated the S.T.O. must satisfy himself that tactical operational necessity is paramount, and the particular circumstances are to be fully investigated. In the case of shipments from the U.K. any departure from the regulations will be decided by Headquarters (M.C.B.2A—Capt. Jackson for ocean-going ships and M.C.B.4—Capt. Campbell for coasters), and at ports abroad S.T.O.s should investigate proposed departures with the Service representatives.

S.T.O.s should ensure that copies of T.152 and of supplement No. 1 are in the possession of each Loading Officer, including Merchant Navy Assistants and Coastal Loading Assistants, as a personal issue, and indents should be made immediately to Headquarters (for the attention of S.T./GEN.2—Mr. Osborne) stating the number of additional copies of T.152 and the supplement which are required for each port.

Further amendments to T.152 will be issued as Sea Transport memoranda, as and when they are agreed by the Explosives Storage and Transport Committee on which the Ministry of War Transport and the Service and Supply departments are represented.

As stated in S.T. Memorandum No. 13 (Home) and 13 (Abroad) Circular No. 1740—"Conditions of Stowage of Explosives and of dangerous and certain other goods in Ships" is also being revised and will be re-issued shortly as Circular No. 1768.

R. I. METCALFE,
Director of Sea Transport.
15th May, 1944.

T.M.15819/3/M.C.B.
Circulation: All S.T.O.s in U.K. and abroad.
T.152 (Sea Transport Regulations—Appendix)
(Revised May, 1943)

**CONVEYANCE OF GOVERNMENT EXPLOSIVES IN FREIGHT
SHIPS DURING THE PRESENT EMERGENCY**

(T.M. 101197/41)

Supplement No. 1

A list of amendments to the May, 1943, edition of the above regulations has been drawn up in the light of further experience in the carriage

Canada Shipping Act—continued

of explosives by sea under war-time conditions. In the main, the list which is set out below comprises a number of amendments to the rules for the stowage of certain explosives, and some additions to the list of explosives set out in Appendix I of the Regulations.

The opportunity is also taken to indicate alternative methods of marking certain explosives to which Appendix IV is applicable.

A few verbal or purely formal amendments have been included.

AMENDMENTS

Para. 4. Add at end:

"An Explosives ship is one carrying any of the explosives in Appendix I, other than those enumerated in para. 3 (a), (b) and (c)."

Para. 21 (a), lines 1 and 5:

After "S.A.S." insert "and P.X.S."

Para. 21 (d). Delete and substitute:

"Ships carrying explosives should normally use sand or other inert material for ballasting. If sand or other inert material cannot be obtained, colliery slag or refuse may be used but explosives should preferably not be stowed in the hold where such ballast is used."

Para. 24. Add at end:

"Petrol Stowage Special	P.X.S.
Deck Stowage Only	D.S.O."

Para. 26. Add at end:

"Note: Smoke Generators and Smoke Grenades No. 79 (Group XI series) should be stowed, whenever possible, in a separate compartment. If this is not possible they should be stowed only with O.A.S. Explosives of Group XI."

Para. 28 (b). Add at end:

"Alternative arrangements to those set out in paras. 32 to 50, Appendix II, may be adopted if approved by the Ministry of War Transport."

Para. 28 (f). Add at end:

"When an insulated space contains G.1 or G.10 chargings, a ventilating pipe with a non-return valve will be fitted to carry gas leakage to a point 15 ft. above deck level, well clear of the bridge and living quarters."

Para. 28 (h), line 5. Delete:

"This arrangement also applies to insulated spaces."

Para. 28 (i) line 10. Insert:

"XII" after "XI".

Para. 28 (j). Delete:

"Group XII Explosives" and substitute "S.A.S. Explosives of Group XII."

Insert new para. 29 (A):

"Petrol Stowage Special P.X.S. Explosives requiring this type of stowage are in Group XV and need the same general stowage conditions as petrol in drums. They are preferably to be stowed in a No. 1 lower hold or a deep tank, but any other space suitable for petrol in drums may be used. No acids, inflammable liquids, or other hazardous cargo are to be in the same hold. Their stowage is to be separated from any other explosives stowage spaces by the engine or boiler spaces. Over stowage with suitable cargo is permissible."

Canada Shipping Act—continued

Insert new para. 29 (B):

"Deck stowage only, D.S.O. Explosives requiring this type of stowage will be placed on deck in steel containers filled with water and, as some of these weapons contain phosphorous, the instructions set out in para. 39 apply."

Para. 30. Add at end:

"In case of emergency, however, upon the authority of Ministry of War Transport Headquarters, to whom each case must be submitted, certain additional explosives may be stowed in 'tween deck spaces over and above emergency coal bunkers, stacks should be raised off the floor on battens to facilitate firefighting operations."

Para. 31. Add at end:

"Aircraft bombs, flares, etc., in clusters will be handled in bridle slings shackled to the packages. No other form of slinging is permissible. Landing mats will be used when loading."

Para. 35, line 2. Delete:

"except in special cases" and substitute "normally".

Para. 35, lines 5, 6, 7 and 8. Delete:

"Should it become necessary to use this space, protection equivalent to not less than 3/32 inch steel plate should be placed over the hatch covers." and substitute:

"In an emergency, however, and upon application to Headquarters of the Ministry of War Transport authorization may be given to build a magazine in this space, provided that protection equivalent to not less than 3/32 inch steel plate is placed over the hatch covers."

APPENDIX I

Group I:

For "Pitric acid" substitute "Pieric acid".

Insert "Adaptors fuseM.S.A."

Page 74. Delete footnotes and substitute:

"*D.N.R. containing 33½ per cent of water calculated on the wet material, is non-explosive.

D.N.P. containing 15 per cent of water, calculated on the wet material, is non-explosive.

†P.E.T.N. must be wetted with 25 per cent of water, calculated on the wet material for conveyance by road, rail or sea.

‡R.D.X. must be wetted with 10 per cent of water, calculated on the wet material, for conveyance by road, rail or sea.

#Pieric acid containing 33½ per cent of water, calculated on the wet material, is non-explosive."

Page 74. For existing footnote on Styphnic acid substitute:

"†Styphnic acid must be wetted with 20 per cent of water, calculated on the wet material for conveyance by road, rail or sea."

Group II:

Insert "Plastic 808 M.S.A."

Delete "Nitro-cellulose powders (N.C. (Y)) (N.C. (Z)).. M.S.A."

and substitute "Nitro-cellulose powders (N.C. (Y))

(N.C. (Z)), 81 mm. powder or Dupont M.4X. M.S.B."

Delete "M.S." after "Blasting gelatine" and substitute "M.S.B."

Delete "M.S.A." after "Gelignite" and substitute "M.S.B."

Canada Shipping Act—continued

Group III:

Delete "Picrite" M.S.B."

Group IV:

Insert "Battle noises" M.S.B.

Guncotton sets, demolition M.S.B.

Picrite M.S.B."

Delete "M.S.A." after "R.D.X.-B.W.X." and substitute "M.S.B."

Group VI:

Delete "Igniter mechanisms" and substitute "Switches" ... O.A.S."

Insert "Adapters 'K'" O.A.S.

Bombs, spray, uncharged O.A.S.

Charges, propelling, spray O.A.S.

Ejectors, explosive, electric O.A.S.

Ejectors, flare O.A.S.

Puffs, powder, friction O.A.S.

Tails, cordtex O.A.S."

Group VII:

Insert "Projectiles, type 'A'" O.A.S."

Group VIII:

Insert "Kits. Waterproofing" O.A.S."

Add "s" to "Petard".

Group IX:

Insert "Bombs, target, identification" A.S.P.

Ejectors, thermal A.S.P.

Rockets, flare A.S.P.

Signals, emergency A.S.P.

Slow Match O.A.S."

Group X:

Insert "Barium Styphnate, wet" M.S.D.

Initiators, charges M.S.D.

Simulators, rifle fire M.S.D."

Delete "Carriage by sea is prohibited" and substitute
"M.S.D." against each item.

Group XI:

Delete "white" in heading and after "phosphorus" insert "phosphides,
inflammable liquid or gel".

Insert "Bombs, target, identification, white" O.A.S.

Destructors, incendiary, No. 1 O.A.S.

Flares, target O.A.S.

Flares, sky marker O.A.S.

Flares, incendiary O.A.S.

Signals, drift, light, A.N. O.A.S."

Insert "No. 79" after "Grenades, smoke".

Group XII:

Delete "white" in heading and insert "or phosphides" after "phosphorus"

Insert "Bombs, flame, break up" S.A.S. (R)

Bombs, practice, flares S.A.S. (R)

Grenades, No. 76 (S.I.P.) D.S.O."

Delete "Bombs, incendiary, 250 lb. fuze".

Canada Shipping Act—continued

Group XIII:

Add "chemical" after "Bombs, ground".

Insert "Jets, chemical S.A.S. (R)"

Insert New Groups:

"Group XIV. This is a naval stowage group on H.M. Ships Only."

"Group XV. Incendiary ammunition, containing inflammable liquids or gel, but not containing phosphides or phosphorus, with or without components in their packages."

"Bombs, incendiary, J. P.X.S.

Bombs, incendiary, 250 lb. O.A.S.

Fougasses D.S.O.

Molotoff Cocktails D.S.O."

APPENDIX II

Para. 32, line 2, for "Group XII and XIII" substitute "S.A.S."
line 3, for "Group XIII" substitute "S.A.S."

Para. 33, Delete last sentence. (This has been misread as authorizing the use of the ship's side or bulkhead without lining.)

Para. 39, line 1, after "quantity of" insert "S.A.S."

Para. 43, line 2, for "5 lbs." substitute "2 lbs. per square inch".

Para. 50, line 2, delete "5 lbs." substitute "2 lbs. per square inch".

Para 51. Add at end "(The necessary approval has been given for the use of a watertight container designed by Messrs. T. & J. Brocklebank, Liverpool, which is larger than that illustrated in Plate IIB but of somewhat similar construction.)" Add: "An approved asbestos lined type magazine or a sand bag enclosure may be used for S.A.S. explosives in Group XII instead of the special calico interlined type."

Plate I, heading, for "Group XIII" substitute "S.A.S."

APPENDIX IV

Para. 1, line 1, after "all" insert "smoke".
line 3, add "or with one white and one red ring".
line 4, add "or with one white and one yellow ring".

Para. 2, line 1, after "all" insert "smoke".
line 2, delete "all are marked 'PHOS'", and substitute "those containing phosphorus may have the letters 'PHOS' in black or alternatively a white band".

Para. 3, line 11, delete, and substitute "Y and G with appropriate numeral in black, whilst the letter B and numeral are in white".

APPENDIX V

(b) line 2, after "Cordite" insert "(up to 100 lb.)"

(b) line 3, after "Ballistite" insert "Picrite".

(b) line 10, add "Pentolite, Picric Acid".

Ministry of War Transport,

April, 1944.

Canada Shipping Act—continued**T. 152 (Sea Transport Regulations—Appendix)
(Revised May, 1943.)****CONVEYANCE OF GOVERNMENT EXPLOSIVES IN FREIGHT SHIPS
DURING THE PRESENT EMERGENCY**

(T.M. 101197/41)

SUPPLEMENT No. 2

A further list of amendments to the May, 1943, edition of the above Regulations has been drawn up in the light of further experience in the carriage of explosives by sea under war-time conditions. Instructions for the handling of Nobel's 822 Explosive and a specification of a portable magazine for the conveyance of liquid explosives are included.

The following amendments should be made to Supplement No. 1:—

Page 82, Note to Para. 26. After "Smoke Generators" add "and Smoke Grenades No. 79 (Group XI series)".

Page 83, Appendix II, Para. 51. Add "An approved asbestos lined type magazine or a sand bag enclosure may be used for S.A.S. explosives in Group XII instead of the special calico interlined type."

AMENDMENTS TO T. 152

Para. 19, line 1. After "M.S.L." insert "M.S.F."

Para. 24, after line 10 insert "Magazine Stowage, Fluids, M.S.F."

Para. 25, page 71. After line 4 insert

"M.S.F.: Explosives requiring this type of stowage are of a liquid nature and are in Group II. They require a special portable magazine of the type described in Appendix II, para. 51."

Para. 31. Add at end—

"Packages containing M.S.F. explosives must be carried, not dragged, on and off the scale boards. Nets or slings are prohibited. The packages must always be hung uppermost as indicated by the legend on the lid."

Para. 32. After line 1 insert—

"(a) Packages containing M.S.F. explosives will be stowed and unloaded in accordance with the instructions contained in Appendix VI."

Para. 32, line 3 for "(a)" substitute "(b)".

Para. 32, page 72 for "(b) (c) (d) (e) (f) (g) (h)" substitute "(c) (d) (e) (f) (g) (h) (k)".

Para. 40. Add at end "M.S.F. explosives will also be accompanied by a conducting party."

Appendix II. Add the following—

"51 Magazine type M.S.F. For the conveyance of M.S.F. explosives a special portable magazine, Plate III will be constructed to the following specification.

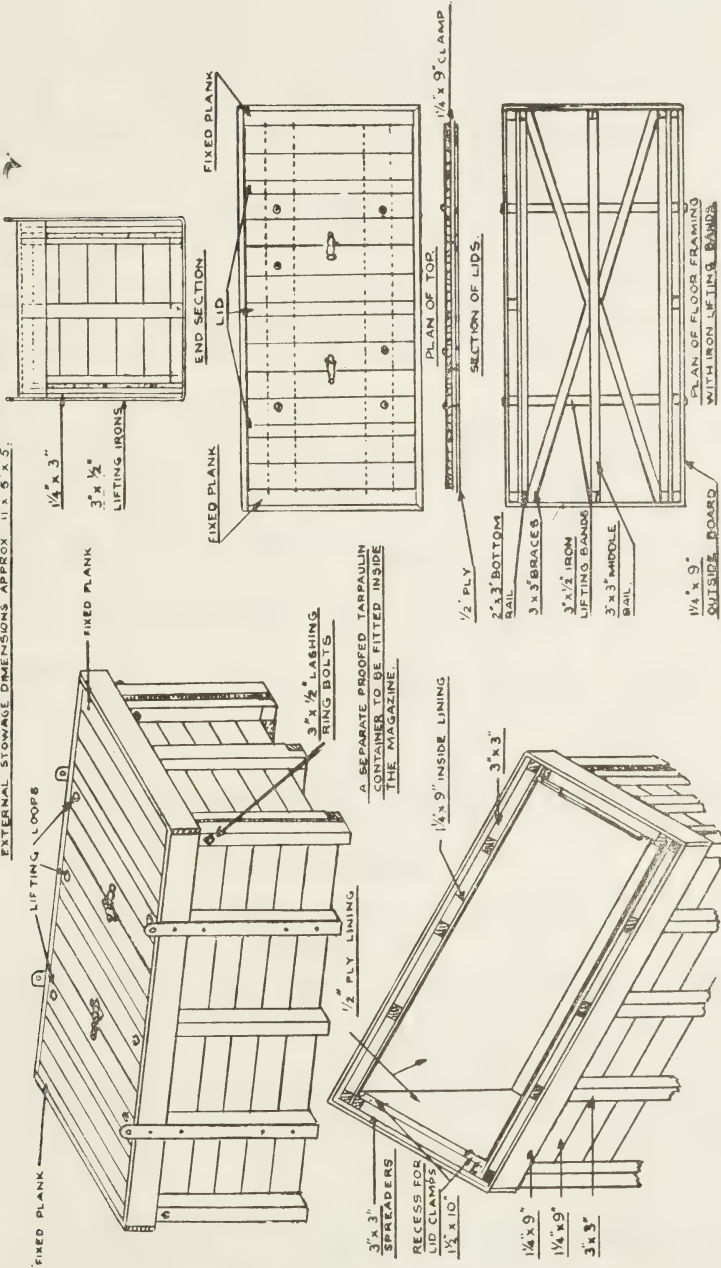
The Magazine will be constructed of 3" x 3" and 9" x 1½" material to the dimensions shown on the Plate. The internal dimensions must be not less than 121" x 49" x 50" deep. It will be fitted with two galvanized iron lifting bands of 3" x ½" section passing under the magazine and provided with lifting holes at the upper ends. The bottom cross bearers are to be joined diagonally by bearers of 3" x 3" section as shown.

Canada Shipping Act—continued

PLATE III

PORTABLE MAGAZINE. M.S.F.

MINIMUM INTERNAL DIMENSIONS 12' LONG 49" WIDE & 50 INCHES DEEP
EXTERNAL STORAGE DIMENSIONS APPROX 11' x 5' x 5'



Canada Shipping Act—continued

The lid is to be in 3 sections, so arranged that the two end sections are locked under fixed planks at each end of the magazine whilst their inner ends form a support for the centre section. Care must be taken to ensure the locking tongues entering smoothly into their recesses in the body. A hasp will be fitted to the upper surface of the end portions about the centre. The centre portion of the lid rests on the sides of the magazine and on the end portions, and two staples are to be provided about its centre for the hasps of the end portions and the padlocks used for securing the Magazine. Two galvanized steel rings are to be fitted to each portion of the lid as shown.

The interior of the Magazine and the under surface of the lid are to be lined with $\frac{1}{2}$ " plywood, presenting a smooth unbroken surface. No uncovered iron or steel fittings, screws, etc., are permitted in the interior of magazine or lid.

Four 3" x $\frac{1}{2}$ " galvanized steel ring bolts are fitted on the outside, as shown, for the purpose of lashing down the magazine.

The internal dimensions shown are of great importance and must be adhered to.

The magazine is to be sufficiently strong to be lifted by the slings when empty, without deformation.

A detachable, proofed, tarpaulin container, cut and sewn to be water-proof, will be provided and fitted inside the Magazine. Its upper edge will be fitted with brass eyelets—5 on each side and 1 in the centre at each end. These eyelets are fitted with rope lashings for the purpose of securing the container over the packages and for its removal when the packages have been unloaded."

Renumber existing para. 51 as para. 52 and amend line 2 by the substitution of "51" for "50".

Appendix V above line 2 from the bottom insert the following:—

"Tails, propelling, Rocket "U" with)	} Group VI"
harness	
Rockets, "U", complete	

Appendix VI. Insert new Appendix VI.

Instructions for the stowage of Nobel's explosive 822.

APPENDIX VI

INSTRUCTIONS FOR STOWAGE OF NOBEL'S 822 EXPLOSIVE

This explosive differs from all other service explosives in being in liquid form. The possibility of leakage therefore arises and any leakage is sensitive to friction and impact.

Special expert consideration has been given to the packing and transport arrangements and it is most essential for all concerned in handling this explosive to understand its nature and the precautions necessary to ensure its safe transport.

Packing.

This explosive is contained in a standard red coloured jerrican with modified stopper, encased in a close-fitting wooden case, which will be painted service colour with stencilling in yellow. The overall dimensions of the case are 21·625" x 9·375" x 16·75", and the gross weight 82 lbs. The lid of the case will be boldly stenciled "THIS END UP ALWAYS", and the case is provided with hand grips so that it may be carried in this position.

Canada Shipping Act—continued*Magazine.*

For protection during transport by sea and in order that any leakage (though unlikely) can be contained and controlled, a special type of magazine has been designed (M.S.F.). Details of this are given in para. 51 of Appendix II.

The external dimensions of the magazine are approximately 11' x 5' x 5', net weight 15 cwts., and 8 cwts. of sawdust will usually be supplied with each magazine. The magazine is stoutly constructed of timber, fitted with iron lifting bands and eyes, and has ring bolts at each corner for securing purposes. The top is in three portable sections.

Wire lugs and shackles for attachment between cargo hook and lifting eyes will be provided with the magazine.

The magazine has a fitted tarpaulin canvas lining with ropes on the upper edge. Leakage will therefore be retained within it and it can be removed entirely without coming in contact with either the structure of the vessel or other cargo or dunnage.

The magazines are prefabricated to standardized dimensions, having a capacity of 70 cases stowed in two tiers of 35 cases each.

Loading.

The magazine (or when the use of more than one is involved, a complete athwartship row of magazines) should be lifted while empty, stowed, and secured in the vessel on dunnage of sufficient thickness to ensure that the metal of the lower part of the lifting bands cannot make contact with the metal of the vessel's structure.

The dunnage should be laid so that visual inspection for leakage can be made underneath the magazines before discharge commences. Dunnage must also be used to protect the sides of lifting bands from coming in contact either with metal of the vessel's structure or the lifting bands of adjacent magazines.

After the magazines are securely stowed the ropes of the canvas lining are secured to the outside of the magazine and a layer of sawdust to a depth of at least 3" is to be laid on the bottom of the canvas lining of each magazine. The sawdust will usually be supplied with the magazine. The magazines are then ready to receive the bottom tier of cases, which should be slung on ordinary ammunition trays and carried in the upright position, not trundled, from the tray when landed, to the magazine. Cases must always be stowed upright with their shortest side parallel to the shortest side of the magazine. The stowage should preferably be from each end in successive rows, finishing up by the insertion of the middle row, as this method prevents the lining being drawn from the ends of the magazine. After the bottom tier is completed the spaces between and around the cases are to be filled with sawdust. Flat timber not exceeding 1" thick is to be placed on top of the lower tier to prevent contact between metal fittings on the top of the lower and bottom of the upper cases.

The second tier of cases should then be stowed and when complete packed with sawdust in a similar manner to the lower tier. The ropes of the lining are then secured neatly across the packages to prevent the lining working down. The lid of the magazines should then be fitted into position, closed and locked.

The same procedure should be followed with the second athwartship row of magazines, and so on as necessary according to the quantity of explosive to be shipped. Endeavour will be made to ship the explosive in quantities which are multiples of 70 cases, but should a magazine be only partly filled special care must be taken to block the cases to prevent movement.

Canada Shipping Act—continued

A 3' thick wall of bagged sawdust must be interposed between the magazines and any other cargo. Over stowage of this explosive by other cargo is prohibited.

Throughout the loading a strict supervision of handling and stowage and a careful inspection for any signs of leakage must be maintained.

Any leakage observed must be dealt with under the personal supervision of the Service Representative Officer.

Discharging.

Before opening magazines at the port of discharge it is imperative that a careful inspection be made around and beneath them for signs of leakage, and a similar inspection inside each magazine after the lid is removed. A flash-proof electric torch must be used for this purpose.

If evidence of leakage is present, or if leakage is detected during the removal of the cases, all work in the compartment must be suspended immediately, and must only be continued upon the advice and personal supervision of the Service Representative Officer.

Similarly, should leakage become apparent only after the explosive has been discharged, the sawdust must be retained in the canvas lining of the magazine and the lining removed completely, under the personal supervision of the Service Representative Officer, who will arrange for its disposal. In the extreme circumstance of any substantial leakage on to any part of the vessel's structure, immediate advice should be telegraphed to M.O.W.T. Headquarters. Small leaks can be dealt with by the Service Representative Officer.

If no signs of leakage are present, discharging will be merely a reversal of the loading procedure.

When the magazine has been emptied of packages, the inner tarpaulin liner, with the sawdust in position, should be carefully removed and thoroughly washed in sea water, the sawdust being thrown into the sea. Sea water will destroy the explosive properties fairly rapidly. The whole of the packages containing 822 should, if possible, be removed from the ship before moving the magazines. If, however, magazines are stowed in more than one row, it is permissible to remove the outer row when empty, before removing the lids of the other magazines prior to discharging them.

General.

A conducting party will be present at all times during loading and discharging of this explosive and will embark on the carrying vessel.

A flash-proof torch will be issued to the Master of each vessel carrying consignments of this explosive.

The explosive is less sensitive than many other service explosives and only gives trouble because of the difficulty of dealing with leakage, therefore, it must be impressed on all concerned that the safety of the explosive in transport and stowage depends on the packages being kept bung uppermost at all times, i.e. as indicated by the legend "THIS END UP ALWAYS".

Copies of this Instruction should be handed to the Master of each carrying vessel and he should also be handed a copy addressed to the Ship's agents in the case of Liner sailings, or the Sea Transport Officer in the case of vessels on S.T. service (or, in his absence, other discharging authority) at port of discharge.

Canada Shipping Act—continued

22. International Rules of the Road

P.C. 1493

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 8th day of April, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of the Canada Shipping Act, is pleased to order as follows:

1. The "Regulations for Preventing Collisions and for Distress Signals", generally known as The International Rules of the Road, established by Order in Council P.C. 259 of February 9, 1897, as amended, are hereby revoked; and

2. The attached "International Rules of the Road" are hereby made and established in substitution for the regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

International rules of the road

In force in all navigable waters within Canada or within the jurisdiction of the Parliament thereof, except the waters of Lakes Superior and Huron, Georgian Bay, Lake Erie and Ontario, their connecting and tributary waters, and the St. Lawrence River, including the Ottawa River and its tributary waters, as far east as the lower exit of the Lachine Canal and the Victoria Bridge at Montreal.

REGULATIONS FOR PREVENTING COLLISIONS AND FOR DISTRESS SIGNALS

Preliminary

In the following rules every steam vessel which is under sail and not under steam is to be considered a sailing vessel, and every vessel under steam, whether under sail or not, is to be considered a steam vessel.

The words "steam vessel" include any vessel propelled by machinery.

A vessel is "under way" within the meaning of these rules, when she is not at anchor, or made fast to the shore or aground.

RULES CONCERNING LIGHTS, ETC.

The word "visible" in these rules, when applied to lights, means visible on a dark night with a clear atmosphere.

Article 1. The rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such time no other lights, which may be mistaken for the prescribed lights shall be exhibited.

Article 2. A steam vessel when under way shall carry:—

- (a) On or in front of the foremast, or if a vessel without a foremast, then in the fore part of the vessel, at a height above the hull

Canada Shipping Act—*continued*

of not less than 20 feet, and if the breadth of the vessel exceeds 20 feet, then at a height above the hull not less than such breadth, so, however that the light need not be carried at a greater height above the hull than 40 feet, a bright white light, so constructed as to show an unbroken light over an arc of the horizon of 20 points of the compass, so fixed as to throw the light 10 points on each side of the vessel, viz., from right ahead to 2 points abaft the beam on either side, and of such a character as to be visible at a distance of at least 5 miles.

- (b) On the starboard side a green light, so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard side, and of such a character as to be visible at a distance of at least 2 miles.
- (c) On the port side, a red light so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from ahead to 2 points abaft the beam on the port side, and of such a character as to be visible at a distance of at least 2 miles.
- (d) The said green and red side-lights shall be fitted with inboard screens projecting at least 3 feet forward from the light, so as to prevent these lights from being seen across the bow.
- (e) A steam vessel when under way may carry an additional white light similar in construction to the light mentioned in paragraph (a). These two lights shall be so placed in line with the keel that one shall be at least 15 feet higher than the other, and in such a position with reference to each other that the lower light shall be forward of the upper one. The vertical distance between these lights shall be less than the horizontal distance.

Article 3. A steam vessel when towing another vessel shall, in addition to her side-lights, carry two bright white lights in a vertical line one over the other, not less than 6 feet apart, and when towing more than one vessel shall carry an additional bright white light, 6 feet above or below such lights, if the length of the tow, measuring from the stern of the towing vessel to the stern of the last vessel towed, exceeds 600 feet. Each of these lights shall be of the same construction and character, and shall be carried in the same position as the white light mentioned in Article 2 (a), except the additional light, which may be carried at a height of not less than 14 feet above the hull.

Such steam vessel may carry a small white light abaft the funnel or aftermast for the vessel towed to steer by, but such light shall not be visible forward of the beam.

Article 4. (a) A vessel which from any accident is not under command shall carry at the same height as the white light mentioned in Article 2 (a), where they can best be seen, and, if a steam vessel, in lieu of that light, two red lights, in a vertical line one over the other, not less than 6 feet apart, and of such a character as to be visible all around the horizon at a distance of at least 2 miles; and shall by day carry in a vertical line one over the other not less than 6 feet apart, where they can best be seen, two black balls or shapes each 2 feet in diameter.

Canada Shipping Act—continued

- (b) A vessel employed in laying or in picking up a telegraph cable shall carry in the same position as the white light mentioned in Article 2 (a), and if a steam vessel, in lieu of that light, three lights in a vertical line one over the other, not less than 6 feet apart. The highest and lowest of these lights shall be red, and the middle light shall be white, and they shall be of such a character as to be visible all around the horizon, at a distance of at least 2 miles. By day she shall carry in a vertical line one over the other, not less than 6 feet apart, where they can best be seen, three shapes not less than 2 feet in diameter, of which the highest and lowest shall be globular in shape and red in colour, and the middle one diamond in shape and white.
- (c) The vessels referred to in this Article when not making way through the water, shall not carry the side-lights, but when making way shall carry them.
- (d) The lights and shapes required to be shown by this Article are to be taken by other vessels as signals that the vessel showing them is not under command, and cannot therefore get out of the way.

These signals are not signals of vessels in distress and requiring assistance. Such signals are contained in Article 31.

Article 5. A sailing vessel under way, and any vessel being towed, shall carry the same lights as are prescribed by Article 2 for a steam vessel under way, with the exception of the white lights mentioned therein, which they shall never carry.

Article 6. Whenever, as in the case of small vessels under way during bad weather, the green and red side-lights cannot be fixed, these lights shall be kept at hand lighted and ready for use; and shall, on the approach of or to other vessels, be exhibited on their respective sides in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side nor the red light on the starboard side nor, if practicable, more than 2 points abaft the beam on their respective sides.

To make the use of these portable lights more certain and easy, the lanterns containing them shall each be painted outside with the colour of the light they respectively contain, and shall be provided with proper screens.

Article 7. Steam vessels of less than 40, and vessels under oars or sails of less than 20 tons gross tonnage respectively, and rowing boats, when under way, shall not be obliged to carry the lights mentioned in Article 2 (a), (b) and (c), but if they do not carry them they shall be provided with the following lights,—

- 1. Steam vessels of less than 40 tons shall carry:—
 - (a) In the forepart of the vessel, or on or in front of the funnel, where it can best be seen, and at a height above the gunwale of not less than 9 feet, a bright white light, constructed and fixed as prescribed in Article 2 (a), and of such a character as to be visible at a distance of at least 2 miles.
 - (b) Green and red side-lights constructed and fixed as prescribed in Article 2 (b) and (c), and of such a character as to be visible at a distance of at least one mile, or a combined lantern showing a green light and a red light from right ahead to 2 point abaft the beam on their respective sides. Such lantern shall be carried not less than 3 feet below the white light.

Canada Shipping Act—continued

2. Small steamboats, such as are carried by sea-going vessels, may carry the white light at a less height than 9 feet above the gunwale, but it shall be carried above the combined lantern, mentioned in paragraph 1 (b).

3. Vessels under oars or sails, of less than 20 tons, shall have ready at hand a lantern with a green glass on one side and a red glass on the other, which, on the approach of or to other vessels, shall be exhibited in sufficient time to prevent collision, so that the green light shall not be seen on the port side nor the red light on the starboard side.

4. Rowing boats, whether under oars or sails, shall have ready at hand a lantern showing a white light, which shall be temporarily exhibited in sufficient time to prevent collision.

The vessels referred to in this Article shall not be obliged to carry the lights prescribed by Article 4 (a) and Article 11, last paragraph.

Article 8. Pilot vessels, when engaged on their station on pilotage duty, shall not show the lights required for other vessels, but shall carry a white light at the masthead, visible all round the horizon, and shall also exhibit a flare-up light or flare-up lights at short intervals which shall never exceed fifteen minutes. On the near approach of or to other vessels they shall have their side-lights lighted, ready for use, and shall flash or show them at short intervals, to indicate the direction in which they are heading; but the green light shall not be shown on the port side, nor the red light on the starboard side.

A pilot vessel of such a class as to be obliged to go alongside of a vessel to put a pilot on board, may show the white light instead of carrying it at the masthead, and may, instead of the coloured lights above mentioned, have at hand ready for use a lantern with a green glass on the one side and a red glass on the other, to be used as prescribed above.

A steam pilot vessel exclusively employed for the service of pilots licensed or certified by any pilotage authority or the Committee of any pilotage district, when engaged on her station on pilotage duty and not at anchor, shall in addition to the lights required for all pilot boats, carry at a distance eight feet below her white masthead light a red light visible all round the horizon and of such a character as to be visible on a dark night with a clear atmosphere at a distance of at least two miles, and also the coloured side-lights required to be carried by vessels when under way.

When engaged on her station on pilotage duty and at anchor she shall carry, in addition to the lights required for all pilot boats, the red light above mentioned, but not the coloured side-lights.

Pilot vessels, when not engaged on their station on pilotage duty, shall carry lights similar to those of other vessels of their tonnage.

Article 9. Fishing vessels and fishing boats, when under way and when not required by this Article to carry or show the lights hereinafter specified, shall carry or show the lights prescribed for vessels of their tonnage under way.

- (a) Open boats, by which it is to be understood boats not protected from the entry of sea water by means of a continuous deck, when engaged in any fishing at night with outlying tackle extending not more than 150 feet horizontally from the boat into the seaway, shall carry one all round white light.

Open boats, when fishing at night, with outlying tackle extending more than 150 feet horizontally from the boat into the seaway, shall carry one

Canada Shipping Act—continued

all round white light, and in addition, on approaching or being approached by other vessels, shall show a second white light at least 3 feet below the first light and at a horizontal distance of at least 5 feet away from it in the direction in which the outlying tackle is attached.

(b) Vessels and boats, except open boats as defined in paragraph (a), when fishing with drift-nets, shall, so long as the nets are wholly or partly in the water, carry two white lights where they can best be seen. Such lights shall be placed so that the vertical distance between them shall be not less than 6 feet and not more than 15 feet, and so that the horizontal distance between them, measured in a line with the keel, shall be not less than 5 feet and not more than 10 feet. The lower of these two lights shall be in the direction of the nets, and both of them shall be of such a character as to show all round the horizon, and to be visible at a distance of not less than 3 miles.

(c) Vessels and boats, except open boats as defined in paragraph (a), when line-fishing with their lines out and attached to or hauling their lines, and when not at anchor or stationary, within the meaning of paragraph (g), shall carry the same lights as vessels fishing with drift-nets. When shooting lines or fishing with towing lines, they shall carry the lights prescribed for a steam or sailing vessel under way, respectively.

(d) Oyster dredges and other vessels fishing with dredge nets shall—

1. If steam vessels, carry in the same position as the white light mentioned in Article 2 (a), a tri-coloured lantern so constructed and fixed as to show a white light from right ahead to 2 points on each bow, and a green light and a red light over an arc of the horizon from 2 points on each bow to 2 points abaft the beam on the starboard and port sides, respectively; and not less than 6 nor more than 12 feet below the tri-coloured lantern, a white light in a lantern, so constructed as to show a clear, uniform and unbroken light all round the horizon.

2. If sailing vessels, shall carry a white light in a lantern, so constructed as to show a clear, uniform and unbroken light all round the horizon, and shall also, on the approach of or to other vessels, show where it can best be seen a white flare-up light or torch in sufficient time to prevent collision.

All lights mentioned in paragraph (d) 1 and 2 shall be visible at a distance of at least 2 miles.

(e) Fishing vessels and fishing boats may at any time use a flare-up light in addition to the lights which they are by this Article required to carry and show, and they may also use working lights.

(f) Every fishing vessel and every fishing boat under 150 feet in length, when at anchor, shall exhibit a white light visible all round the horizon at a distance of at least one mile.

Every fishing vessel of 150 feet in length or upwards, when at anchor, shall exhibit a white light visible all round the horizon at a distance of at least one mile, and shall exhibit a second light as provided for vessels of such length by Article 11.

Should any such vessel, whether under 150 feet in length or of 150 feet in length or upwards, be attached to a net or other fishing gear, she shall on the approach of other vessels show an additional white light at least 3 feet below the anchor light, and at a horizontal distance of at least 5 feet away from it in the direction of the net or gear.

Canada Shipping Act—continued

- (g) If a vessel or boat when fishing becomes stationary in consequence of her gear getting fast to a rock or other obstruction, she shall in daytime haul down the day signal required by paragraph (i); at night show the light or lights prescribed for a vessel at anchor, and during fog, mist, falling snow, or heavy rain storms, make the signal prescribed for a vessel at anchor (See paragraph (d) and the last paragraph of article 15.)
- (h) In fog, mist, falling snow, or heavy rain storms, drift net vessels attached to their nets, and vessels when dredging, or when line-fishing with their lines out, shall, if of 20 tons gross tonnage or upwards, respectively, at intervals of not more than one minute, make a blast; if steam vessels, with the whistle or siren, and if sailing vessels, with the fog-horn; each blast to be followed by ringing the bell. Fishing vessels and boats of less than 20 tons gross tonnage shall not be obliged to give the above-mentioned signals; but if they do not, they shall make some other efficient sound signal at intervals of not more than one minute.
- (i) All vessels or boats fishing with nets or lines, when under way, shall in daytime indicate their occupation to an approaching vessel by displaying a basket or other efficient signal where it can best be seen. If vessels or boats at anchor have their gear out, they shall, on the approach of other vessels, show the same signal on the side on which those vessels can pass.

The vessels required by this article to carry or show the lights hereinbefore specified shall not be obliged to carry the lights prescribed by Article 4 (a), and the last paragraph of Article 11:

Article 10. A vessel which is being overtaken by another shall show from her stern to such last mentioned vessel a white light or a flare-up light.

The white light required to be shown by this Article may be fixed and carried in a lantern, but in such case the lantern shall be so constructed, fitted and screened that it shall throw an unbroken light over an arc of the horizon of 12 points of the compass, viz., for 6 points from right aft on each side of the vessel so as to be visible at a distance of at least one mile. Such light shall be carried as nearly as practicable on the same level as the side-lights.

Article 11. A vessel under 150 feet in length, when at anchor, shall carry forward, where it can best be seen, but at a height not exceeding 20 feet above the hull, a white light in a lantern so constructed as to show a clear, uniform and unbroken light visible all round the horizon at a distance of at least one mile.

A vessel of 150 feet or upwards in length, when at anchor, shall carry in the forward part of the vessel, at a height of not less than 20 and not exceeding 40 feet above the hull, one such light, and at or near the stern of the vessel, and at such a height that it shall be not less than 15 feet lower than the forward light, another such light.

The length of a vessel shall be deemed to be the length appearing in her certificate of registry.

A vessel aground in or near a fairway shall carry the above light or lights, and the two red lights prescribed by Article 4 (a).

Article 12. Every vessel may, if necessary, in order to attract attention, in addition to the lights which she is by these Rules required to carry, show a flare-up light or use any detonating signal that cannot be mistaken for a distress signal.

Canada Shipping Act—continued

Article 13. Nothing in these Rules shall interfere with the operation of any special rules made by the government of any nation with respect to additional station and signal lights for two or more ships of war or for vessels sailing under convoy, or with the exhibition of recognition signals adopted by shipowners, which have been authorized by their respective governments and duly registered and published.

Article 14. A steam vessel proceeding under sail only, but having her funnel up, shall carry in day time forward, where it can best be seen, one black ball or shape 2 feet in diameter.

SOUND SIGNALS FOR FOG, ETC.

Article 15. All signals prescribed by this Article for vessels under way shall be given:—

1. By "steam vessels", on the whistle or siren.
2. By "sailing vessels and vessels towed", on the fog horn.

The words "prolonged blast" used in this Article mean a blast of from 4 to 6 seconds duration.

A steam vessel shall be provided with an efficient whistle or siren, sounded by steam or some substitute for steam, so placed that the sound may not be intercepted by any obstruction, and with an efficient fog horn, to be sounded by mechanical means, and also with an efficient bell. A sailing vessel of 20 tons gross tonnage or upwards shall be provided with a similar fog horn and bell. In fog, mist, falling snow, or heavy rain storms, whether by day or night, the signals described in this Article shall be used as follows:—

- (a) A steam vessel having way upon her shall sound, at intervals of not more than 2 minutes, a prolonged blast.
- (b) A steam vessel under way, but stopped and having no way upon her, shall sound at intervals of not more than 2 minutes, two prolonged blasts, with an interval of about one second between them.
- (c) A sailing vessel under way shall sound, at intervals of not more than one minute, when on the starboard tack, one blast, when on the port tack, two blasts in succession, and when with the wind abaft the beam, three blasts in succession.
- (d) A vessel when at anchor shall, at intervals of not more than one minute, ring the bell rapidly for about 5 seconds.
- (e) A vessel when towing, a vessel employed in laying or in picking up a telegraph cable, and a vessel under way, which is unable to get out of the way of an approaching vessel through being not under command, or unable to manœuvre as required by these Rules, shall, instead of the signals prescribed in paragraphs (a) and (c) of this Article, at intervals of not more than 2 minutes, sound three blasts in succession, viz., one prolonged blast, followed by two short blasts. A vessel towed may give this signal and she shall not give any other.

Sailing vessels and boats of less than 20 tons gross tonnage shall not be obliged to give the above mentioned signals, but if they do not, they shall make some other efficient sound-signal at intervals of not more than one minute.

Canada Shipping Act—continued**SPEED OF SHIPS TO BE MODERATE IN FOG, ETC.**

Article 16. Every vessel shall, in a fog, mist, falling snow, or heavy rain storms, go at a moderate speed, having careful regard to the existing circumstances and conditions.

A steam vessel hearing, apparently forward of her beam, the fog-signal of a vessel, the position of which is not ascertained shall, so far as the circumstances of the case admit, stop her engines, and then navigate with caution until danger of collision is over.

STEERING AND SAILING RULES**PRELIMINARY—RISK OF COLLISION**

Risk of collision can, when circumstances permit, be ascertained by carefully watching the compass bearing of an approaching vessel. If the bearing does not appreciably change, such risk should be deemed to exist.

Article 17. When two sailing vessels are approaching one another so as to involve risk of collision, one of them shall keep out of the way of the other, as follows, viz.:—

- (a) A vessel which is running free shall keep out of the way of a vessel which is close hauled.
- (b) A vessel which is close hauled on the port tack shall keep out of the way of a vessel which is close hauled on the starboard tack.
- (c) When both are running free, with the wind on different sides, the vessel which has the wind on the port side shall keep out of the way of the other.
- (d) When both are running free, with the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.
- (e) A vessel which has the wind aft shall keep out of the way of the other vessel.

Article 18. When two steam vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard so that each may pass on the port side of the other.

This article only applies to cases where vessels are meeting end on, or nearly end on, in such a manner as to involve risk of collision and does not apply to two vessels which must, if both keep on their respective courses, pass clear of each other.

The only cases to which it does apply are when each of the two vessels is end on, or nearly end on, to the other, in other words, to cases in which, by day, each vessel sees the masts of the other in a line, or nearly in a line, with her own; and by night, to cases in which each vessel is in such a position as to see both the side-lights of the other.

It does not apply, by day, to cases in which a vessel sees another ahead crossing her own course; or by night, to cases where the red light of one vessel is opposed to the red light of the other, or where the green light of one vessel is opposed to the green light of the other, or where a red light without a green light, or a green light without a red light is seen ahead, or where both green and red lights are seen anywhere but ahead.

Canada Shipping Act—continued

Article 19. When two steam vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way of the other.

Article 20. When a steam vessel and a sailing vessel are proceeding in such directions as to involve risk of collision, the steam vessel shall keep out of the way of the sailing vessel.

Article 21. Where by any of these Rules one of two vessels is to keep out of the way, the other shall keep her course and speed.

NOTE.—When, in consequence of thick weather or other causes, such vessel finds herself so close that collision cannot be avoided by the action of the giving-way vessel alone, she also shall take such action as will best aid to avert collision. (*See Articles 27 and 29.*)

Article 22. Every vessel which is directed by these Rules to keep out of the way of another vessel shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Article 23. Every steam vessel which is directed by these Rules to keep out of the way of another vessel shall, on approaching her, if necessary, slacken her speed or stop or reverse.

Article 24. Notwithstanding anything contained in these rules, every vessel overtaking any other shall keep out of the way of the overtaken vessel.

Every vessel coming up with another vessel from any direction more than 2 points abaft her beam, *i.e.*, in such a position, with reference to the vessel which she is overtaking, that at night she would be unable to see either of that vessel's side-lights, shall be deemed to be an overtaking vessel, and no subsequent alteration of the bearing between the two vessels shall make the overtaking vessel a crossing vessel within the meaning of these Rules, or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.

As by day the overtaking vessel cannot always know with certainty whether she is forward of or abaft this direction from the other vessel, she should, if in doubt, assume that she is an overtaking vessel and keep out of the way.

Article 25. In narrow channels every steam vessel shall, when it is safe and practicable, keep to that side of the fairway or mid-channel which lies on the starboard side of such vessel.

Article 26. Sailing vessels under way shall keep out of the way of sailing vessels or boats fishing with nets, or lines, or trawls. This Rule shall not give to any vessel or boat engaged in fishing the right of obstructing a fairway used by vessels other than fishing vessels or boats.

Article 27. In obeying and construing these Rules, due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from the above Rules necessary in order to avoid immediate danger.

SOUND SIGNALS FOR VESSELS IN SIGHT OF ONE ANOTHER

Article 28. The words "short blast" used in this Article shall mean a blast of about one second's duration.

Canada Shipping Act—continued

When vessels are in sight of one another, a steam vessel under way, in taking any course authorized or required by these Rules, shall indicate that course by the following signals on her whistle or siren, viz:—

One short blast to mean: "I am directing my course to starboard."

Two short blasts to mean: "I am directing my course to port."

Three short blasts to mean: "My engines are going full speed astern."

NO VESSEL UNDER ANY CIRCUMSTANCES TO NEGLECT PROPER PRECAUTIONS

Article 29. Nothing in these Rules shall exonerate any vessel, or the owner, or master, or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

RESERVATION OF RULES FOR HARBOURS AND INLAND NAVIGATION

Article 30. Nothing in these Rules shall interfere with the operation of a special rule, duly made by local authority, relative to the navigation of any harbour, river or inland waters.

DISTRESS SIGNALS

Article 31. When a vessel is in distress and requires assistance from other vessels or from the shore, the following shall be the signals to be used or displayed by her, either together or separately, viz:—

In the daytime—

1. A gun or other explosive signal fired at intervals of about a minute;
2. The International Code signal of distress indicated by NC;
3. The distant signal, consisting of a square flag, having either above or below it a ball or anything resembling a ball;
4. A continuous sounding with any fog-signal apparatus.

At night—

1. A gun or other explosive signal fired at intervals of about a minute;
2. Flames on the vessel (as from a burning tar-barrel, oil-barrel, etc.);
3. Rockets or shells, throwing stars of any colour or description, fired one at a time, at short intervals;
4. A continuous sounding with any fog-signal apparatus.

RAFTS AND HARBOURS OF SOREL

Article 32. Rafts, while drifting or at anchor on any of the waters of Canada, shall have a bright fire kept burning on them from sunset to sunrise. Whenever any raft is going in the same direction as another which is ahead, the one shall be so navigated as not to come within 20 yards of the other, and every vessel meeting or overtaking a raft shall keep out of the way thereof.

Rafts shall be so navigated and anchored as not to cause any unnecessary impediment or obstruction to vessels navigating the same waters.

Article 33. Unless it is otherwise directed by the Harbour Commissioners of Montreal, ships and vessels entering or leaving the harbour of Sorel shall take the port side, anything in the preceding Articles to the contrary notwithstanding.

Canada Shipping Act—continued

Article 34. The rules of navigation contained in Articles 32 and 33 shall be subject to the provisions contained in Articles 27 and 29.

RULES FOR DREDGING PLANTS ON THE LOWER ST. LAWRENCE RIVER

The following Rules with respect to day and night signals to be displayed by dredging plants, shall apply in the River St. Lawrence between Lock No. 1, Lachine Canal, Montreal and Father Point Wharf, P.Q.:—

Daytime means from sunrise to sunset, and night time means from sunset to sunrise.

Elevator or Bucket Ladder Dredges, and Hydraulic Dredges, during daytime will show, at the forward and after end of the vessel on the side on which the traffic is to pass, two black balls or shapes not less than 2 feet in diameter, suspended one over the other not less than 6 feet apart and at least 10 feet outside the hull. During night time, red lights similarly placed will be shown.

Dipper Dredges, during daytime will show, at the forward and after end of the dredge, on the side on which the traffic is to pass, two black balls or shapes, not less than 2 feet in diameter, suspended one over the other, not less than 6 feet apart and at a sufficient distance from the side of the dredge and sufficiently high, to make sure that under no circumstances, with the dipper arm and boom athwartship, can the visibility of these shapes be interfered with. During night time red lights similarly placed will be shown.

At night time, pipe lines attached to *Hydraulic Dredges*, either floating or supported by trestles, shall display one row of white lights clear of all obstructions, one light for each section of pipe. The discharge end of the pipe line shall show a red light. All lights to be visible around the horizon.

At night time, the usual lights required by the International Collision Regulations for a vessel at anchor, shall also be shown.

23. Regulations re Examination of Masters and Mates in the Mercantile Marine for Foreign-going Certificates of Competency

P.C. 1570

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of April, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of the Canada Shipping Act, 1934, is pleased to order as follows:

1. The rules and regulations governing the Examination of Masters and Mates in the Mercantile Marine for Foreign-going Certificates of Competency, established by Order in Council P.C. 2868 of November 5th, 1936, are hereby revoked; and

Canada Shipping Act—continued

2. The attached "Canadian Regulations relating to the Examination of Masters and Mates in the Mercantile Marine for Foreign-going Certificates of Competency" are hereby made and established in substitution for the rules and regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

CANADIAN REGULATIONS RELATING TO THE EXAMINATION OF MASTERS AND
MATES IN THE MERCANTILE MARINE FOR FOREIGN-GOING
CERTIFICATES OF COMPETENCY

CHAPTER I

QUALIFICATIONS REQUIRED FOR THE VARIOUS GRADES

1. Candidates for certificates of competency who before the first day of January, one thousand nine hundred and thirty-six, were qualified for examination in accordance with the 1932 regulations may present themselves for examination at any time without further qualifying service. All other candidates will be required to qualify under the revised sea service regulations.

2. *Value of certificates.*—Foreign-going Certificates of Competency as Master, First or Second Mate, will be valid for use on any mechanically propelled vessel under the title "Steamship"; but they will not entitle the holder to go to sea as Master, Mate or Second Mate of a foreign-going sailing ship unless endorsed for that purpose. Candidates who desire a sailing ship qualification can obtain the necessary endorsements to their certificates by complying with the conditions set forth in paragraphs 30, 31, 32 and 33, and pass the necessary examination in seamanship.

Holders of "Ordinary" certificates issued prior to the coming into force of these regulations, are entitled to act in their certified capacities in any vessel however propelled.

SECOND MATE (FOREIGN-GOING)

3. *Qualifications.*—A candidate must have served four years at sea in foreign-going ships or the equivalent, six years, in home-trade voyages as defined in section 2, subsection 38, of the Canada Shipping Act, 1934; and unless he was qualified before these regulations came into force, must be not less than twenty years of age.

SYLLABUS

4. *General.*—Candidates should demonstrate their understanding of their work by means of sketches and figures drawn with reasonable accuracy but not to scale.

The "Knowledge of Principles" paper is intended to test the candidate's grasp of fundamental technical ideas and processes required in his work at sea. Mathematical proofs of formulae are not required, but a candidate should be able to demonstrate the truth of a formula by means of a figure where possible.

5. *Paper 1. (Written).*

Canada Shipping Act—continued

KNOWLEDGE OF PRINCIPLES (3 hours)

- (a) The reading of simple graphical diagrams, e.g., stability curves, weather statistics, etc.
- (b) The practical use of logarithms to base 10; their use in simple calculations involving multiplication, division, simple powers and roots.
- (c) Areas and perimeters of rectangle, triangle, circle, volumes, and surface areas of box-shaped bodies, cylinders and wedges. Practical applications, e.g., weight of general cargo of varied shapes, capacities of holds and bunkers; weight of contents of bunkers.
- (d) Plane sections of a sphere. Great and small circles. Angle between two great circles. Shortest distance between two points on a sphere. Formation of spherical triangles. Sides and angles of spherical triangles.
- (e) Trigonometrical ratios—sine, cosine, tangent, cosecant, secant, cotangent; haversine.

The simple relations between these ratios. The relation between the ratios of angles which together make (a) one right angle (b) two right angles—e.g., the sine of an angle = the cosine of its complement, etc.

The solution of a plane right-angled triangle. Use of the Traverse Table for solving right-angled triangles. Practical problems on right-angled triangles, e.g., doubling the angle on the bow, four-point bearing, danger angles, distance from a point of land of known height, etc.

- (f) Given two sides and the included angle of a spherical triangle, to find the third side.

Given three sides of a spherical triangle to find any angle. (These two problems are preferably done by the use of the haversine (formulae)).

A general understanding of the following:

- (g) The earth and its daily and annual movements. Meaning of equator and poles. The position of a place fixed by its latitude and longitude; meridians. Distances measured on the earth; nautical mile; departure. To show clearly, but without proof, the connection between departure, difference of longitude and middle latitude.
- (h) The real movement of sun, moon and planets. The celestial sphere; celestial poles; celestial meridian above and below pole; zenith; celestial equator. Altitude and zenith distance of heavenly bodies; celestial horizon, prime vertical; circles of altitude.
- (i) Apparent movements of heavenly bodies. Declination. Rising and setting of heavenly bodies. Amplitude. The position of a heavenly body on the celestial sphere both with and without reference to the observer, i.e., Declination with Right Ascension or Azimuth with altitude—Azimuth.
- (j) Apparent movement of sun. Mean sun. Ecliptic. Length of day and night. First point of Aries. Right ascension. Right ascension of mean sun.
- (k) General ideas on time. Hour angle. Greenwich and other standard times. Simultaneous hour angles of heavenly bodies in different places. Sidereal time. Relation of longitude and time. Equation of time. Mean and apparent times at Greenwich and elsewhere.

Canada Shipping Act—continued

(l) Hour angle of heavenly body+Right Ascension of heavenly body
 =Hour Angle of Mean Sun+Right Ascension of Mean Sun.

The meaning of E. and R. in the Nautical Almanac.

(m) Correction of sextant altitudes. True horizon and visual horizon; dip of the horizon. Effect of atmosphere, refraction. Semidiameter. Parallax.

(n) Geographical position of heavenly body.

The simple explanation of the "Circle of position" on the earth, based on the three following facts:—

Zenith distance of heavenly body=distance of geographical position from an observer.

Latitude of geographical position=Declination of heavenly body.

Longitude of geographical position=Hour Angle of heavenly body West of the meridian of Greenwich.

How a position circle is placed on a chart in practice.

Position line. Intercept.

A simple description of how a position line is obtained from the observed altitude of a heavenly body by:—

(i) A Meridian Altitude.

(ii) An Ex-Meridian Altitude.

(iii) An Altitude of Polaris.

(iv) An altitude with an assumed latitude (Longitude by chronometer).

(v) An altitude with an assumed Dead Reckoning position (Marcq St. Hilaire).

(o) Magnetic Meridian. Deviation and variation of the magnetic compass. Correction of compass courses and bearings to magnetic or true courses and bearings and vice versa.

(p) The simple properties of a Mercator's Chart with regard to courses and bearings, longitude and latitude scales and the measurement of distance. Rhumb lines. Meridional Parts.

6. Paper 2. (Written).**PRACTICAL NAVIGATION I. (Including Tides) (2 hours)**

(a) To calculate approximate time of high water by the use of the High Water Full and Change constant. To find the time and height of high and low water at Standard Ports (Admiralty Tide Tables). To find the height of tide at a given time intermediate between high and low water, and thence by use of tables or diagram to determine approximate corrections to soundings and heights of objects above sea level taken at such intermediate times. Chart datum lines.

(b) To find course and distance, departure, and difference of latitude between two points by means of the Traverse Table. Practical use of formula connecting departure, difference of longitude and middle latitude.

(c) To find the course and distance between two points by the use of meridional parts (Mercator Sailing).

(d) Chronometers. Stowage at safe distance from magnetic and electrical instruments. Management and care. Handling, winding, comparing. Writing up chronometer journal. Value of daily comparisons. Wireless and other time signals for rating chronometers.

Canada Shipping Act—continued

- (e) To find true bearing of any heavenly body by Azimuth or Amplitude Tables diagram, or any other method the candidate may select. To find the error of the compass, and thence the deviation.

7. Paper 3 (Written).

PRACTICAL NAVIGATION II. (3 hours)

(In the correction of observed altitudes, total correction tables may be used)

- (a) By the use of the Traverse Table, to obtain the Dead Reckoning position of the ship at any time, given compass courses and errors, and the run recorded by log or calculated by estimate speed and time by standard clock. The candidate may be asked to allow for the effects of current and wind.
- (b) To find the latitude by Meridian Altitude of sun, star, moon or planet, and to determine a position line by this means.
- (c) To work an ex-Meridian altitude of the sun, and thence to find a position line.
- (d) To determine from observed altitude of sun, star, moon, or planet a position line on which the ship is by longitude by chronometer method if suitable, or by any other method (e.g. Marcq St. Hilaire) at the discretion of the candidate.
- (e) Given one position line, knowing the speed of ship and interval of time between observations, to transfer such position line to that obtained from meridian or ex-meridian altitude, and thence to determine the ship's position at time of second observation.

CHART WORK (2 hours)

8. Paper 4.

(True courses and bearings will, as a rule, be given as from a Compass Card marked 0° to 360° , e.g. course 264° True. Magnetic and compass sources and bearings will be given with reference to cardinal points, e.g. course S. 84° W. magnetic. Candidates should conform to this practice).

- (a) On a chart, to find the true course and distance between two points; given compass error, to find magnetic and compass course and vice versa; to keep the Dead Reckoning on a chart; to lay off courses, allowing for current.
- (b) On a chart, to fix the ship by simultaneous cross bearings, bearing and range, or by wireless cross bearings, applying the necessary corrections. To fix by the bearings of one or more objects with run between, allowing for current; to find the distance at which the ship will pass a given point.
- (c) To avoid dangers and to use clearing marks. To use horizontal and vertical danger angles.
- (d) To interpret from a chart the information it gives, particularly about buoys, lights, depths and nature of bottom, tides and tidal currents. Recognition of the coast. The intelligent use of Sailing Directions.

(N.B.—The Examiner may ask oral questions on the above syllabus.)

9. Paper 5 (Written).

CARGO WORK AND ELEMENTARY SHIP CONSTRUCTION
(3 hours)

- (a) The stowage and dunnaging of different varieties of cargoes, including bulk cargoes. Elementary ideas on the making and use of cargo plans.

Canada Shipping Act—continued

The preparation for stowage, breaking out and discharge of cargo.

Rigging a ship for loading and discharging cargo, and the use of derricks and winches. Strength of cargo gear.

The calculation of capacities of bunkers, holds, tanks and boats.

Calculation of capacities taken up by part cargoes and of space remaining. Conversion of weight measurement of cargo into space measurement and vice versa.

(b) The names of the principal parts of a ship.

General ideas on ship construction and hull maintenance. The candidate will be expected to show his practical acquaintance with certain portions of his own ship, e.g., longitudinal and transverse framing. Bulkheads. Hatches. Rudders and steering gear. Shell plating. Stern frame. Propellers and propeller shafts, stern tube, propeller brackets.

The stiffening and strengthening to resist panting, pounding and propeller vibrations.

Double bottom tanks, bilges, bilge pumps, sounding pipes. Ventilation systems of holds and tanks.

(c) Displacement. Deadweight.

Use of tons per inch immersion scale. Calculation of weight of cargo, etc., from draughts.

Effect of varying density of water.

Buoyancy. Centre of gravity and centre of buoyancy. The laws of floating bodies.

Effect of filling and emptying ballast tanks on centre of gravity of ship as a whole.

10. Paper 6 (Written).

ENGLISH (1½ hours)

The paper will be designed to test the candidate's ability to write clear and grammatical English with due attention to spelling and penmanship. It will be in no sense a test of technical knowledge.

11. Oral and Practical Portions.

1. (a) Rigging of ships. Strength of ropes, wire and hemp. Rigging purchases of various kinds and knowledge of power gained by purchases. Knotting and splicing hemp and steel ropes with strict reference to current practice. Seizings, racking chain stoppers, etc.

(b) Sending topmasts up and down.

(c) Bending, setting and taking in fore-and-aft sails. Management of boats under oars and sail and in heavy weather. Beaching or landing. Coming alongside.

(d) Helm orders. Conning the ship.

2. (a) Marking and use of ordinary leadline.

(b) Use and upkeep of mechanical logs and sounding machines.

(c) Use and upkeep of engine room and other telegraphs.

(d) Rocket and line throwing apparatus.

3. (a) Anchors and cables. Use, upkeep and survey.

(b) Knowledge of use and maintenance of deck appliances and steering gear.

(c) Fire extinguishing apparatus—steam, chemical and other appliances.

Canada Shipping Act—continued

4. (a) Preparations and precautions for getting under way. Duties prior to proceeding to sea, making harbour or coming alongside, specially at after end of ship.
- (b) Keeping an anchor watch. Dragging anchor.
- (c) Duties of officer of the watch. Use of compass to ascertain risk of collision.
5. (a) A full knowledge of the content and application of the regulations for preventing collision at sea. (Candidates will not be placed in the position of handling a sailing ship, but will be expected to recognize a sailing ship's lights and to have a knowledge of her possible manoeuvres according to the direction of the wind.)
- (b) Distress and pilot signals; penalties for misuse.
- (c) British uniform system of buoyage.
- (d) An intelligent use of "Notices to Mariners." (Candidates will not be required to commit these to memory.)

6. Signals.

To send and receive signals in:—

- (a) British Semaphore up to eight words per minute.
- (b) Morse Code by flash lamp up to six words per minute.
- (c) International Code of Signals.

7. Practical.

- (a) to read and understand a barometer, thermometer, hydrometer and hygrometer. (The instruments supplied by the Meteorological Office will be taken as standard.)
- (b) To use an azimuth mirror, pelorus (bearing plate) or other instrument for taking bearings; to place these bearings on a chart, having corrected for given compass error.
- (c) To use a sextant for taking vertical and horizontal angles; to read a sextant both on and off the arc.
- (d) To correct a sextant into which has been introduced some or all of perpendicularity, side and index errors.
- (e) To find the index error of a given sextant.
- (f) to check chronometers by signal made by buzzer or other method; to compare two chronometers.

8. The Examiner may ask the candidate questions arising out of the written work, if he deems it necessary on account of weakness shown by the candidate. (This applies particularly to Paper 5.)

FIRST MATE (FOREIGN-GOING)

12. Qualifications.—A candidate must be not less than twenty-one and a half years of age, and must have served five and a half years at sea in foreign-going ships or the equivalent, eight years and three months in home-trade voyages (see paras. 40 and 41). This period of sea service must include either—

- (a) Eighteen months in a capacity not lower than that of third of three watchkeeping officers on a foreign-going ship whilst holding a certificate as Second Mate of a foreign-going ship (see also para 44); or
- (b) Two years and three months in a capacity not lower than that of First Mate in home-trade voyages whilst holding a certificate as Second Mate of a foreign-going ship.

Canada Shipping Act—continued

13. First Mate. Special Regulations applying only where a candidate has served continuously with the same company as apprentice and junior officer.—A candidate who has served continuously with the same company or shipping firm as apprentice and junior officer may be allowed to present himself for examination for a certificate as First Mate on completion of two years service, performed while holding a Second Mate's certificate, as the junior of two bridge-keeping officers of the watch, provided that the whole of his service has been performed upon ocean-going steamships of not less than 8,000 tons gross, making an average speed of 13 knots or upwards and carrying a crew of not less than 130 men, including at least five deck officers in addition to the Master. If the candidate passes the examination a certificate will not be issued to him, however, until he produces proof of twelve months sea service in effective charge of a watch (see para. 44) in addition to the two years service as junior bridgekeeping officer described above.

SYLLABUS

(The navigation and chart work papers may include questions on the syllabus for Second Mate.)

14. Paper 1 (Written).

PRACTICAL NAVIGATION I (3 hours)

- (a) Knowledge and recognition of stars of first magnitude. To calculate the approximate times (to nearest minute) of meridian passage of any heavenly bodies; to calculate an approximate altitude for setting the sextant for a meridian altitude of a heavenly body.
- (b) To find the latitude from an altitude of Polaris. Thence to find a position line.
- (c) To work an ex-meridian altitude of any heavenly body and thence to find a position line.
- (d) By transfer of a previous position line and an observation of a heavenly body, to obtain a running fix by the use of protractor and plain or squared paper, or by tables. Particular cases of position lines from Meridian Altitudes or from Polaris.
- (e) By nearly simultaneous altitudes of any heavenly body, to determine the position at the time of observation from the intersection of position lines.

15. Paper 2 (Written).

PRACTICAL NAVIGATION II (2 hours)

- (a) To find the magnetic bearing of a distant object by swinging on equidistant compass points, thence to construct a deviation table or curve.
- (b) To calculate the initial course and distance on a Great Circle track between two points, and, by the use of the Vertex of the Great Circle, to lay off such a track on a Mercator's Chart.
- (c) The use of Admiralty Tide Tables (Part II, Section 1, the use of non-harmonic constants and tidal differences).
- (d) The harmonic method of tidal prediction and the use of harmonic constants (Admiralty Tide Tables, Part II, Section 11).

Canada Shipping Act—continued

16. Paper 3.

CHART WORK (2 hours)

- (a) To interpret from a chart the information it gives and to use Sailing Directions intelligently. Description and recognition of a coast. Landfalls in clear weather. Selection of suitable points for bearings. Distance of sighting lights; distance from point of land of known height; distance of passing a point of land; course to pass point at a given distance. Danger angles—horizontal and vertical. Entering channels allowing for current. To prepare for anchorage and for entering narrow waters. Reliability of charts. Corrections.
 - (b) Landfalls in thick weather. Construction and use of line of soundings. The general use of a single position line in making land, including clearing marks. The use of bearings obtained by wireless direction finder, bearings given from shore station, or the use of wireless beacons.
 - (c) The use of a Gnomonic Chart and transfer of a Great Circle or composite track from such a chart to Mercator's Chart.
- (N.B.—The examiner may ask oral questions on the above syllabus.)

17. Paper 4 (Written).

SHIP CONSTRUCTION AND STABILITY (3 hours)

- (a) A general knowledge of the principal structural members of a ship. Midship sections of different types of ships, giving the parts their proper names. Scaling dimensions on a midship section to make intelligible reports.

Ability to set out in a clear manner a report on damage sustained by corrosion or by accident.

Construction and stiffening of watertight bulkheads.

Collision bulkhead.

Stern frame and stem and how secured.

Stresses and strains in ships through effect of seas or loading and ballasting.

A knowledge of those portions of a ship specially strengthened to withstand such stresses, or where excessive damage by corrosion is liable to occur.

Rivets, and riveting. Testing a line of rivets. Testing watertight work.

Rudders and steering gear. Inspection and maintenance.

Hatches and hatch gear. Hawsepipes and cable lockers.

- (b) Buoyancy and reserve buoyancy. The righting couple when a ship is inclined. Metacentre and metacentric height. Traverse and longitudinal metacentres. Stiff and tender ships—how to obtain stiffness. Stability at large angles of inclination and what this depends on.

Preparation of data for ascertaining metacentric heights of a ship in any particular condition.

Determination of centre of gravity of a ship in any condition, the centre of gravity in light condition being given. Use of stability curves and data supplied to a ship. Alteration of stability during a voyage. Effect of shifting cargo. Change of trim.

Canada Shipping Act—continued**18. Paper 5 (Written).**

SHIP MAINTENANCE, ROUTINE AND CARGO WORK (3 hours)

- (a) Keeping a ship's log. (Mate's log.)
- (b) Ship maintenance and organization. Indents and stores. Repair lists. Properties and uses of paints. Painting, chipping, scraping. Cement work. Treatment of wood work. Inspection and maintenance of bulkheads, double bottoms, deep tanks, rudders. Bottom painting. Drainage of holds and double bottom tanks. Inspection and maintenance of anchors and cables. Maintenance of holds with reference to cargo carrying. Spar ceilings, etc. Inspection and maintenance of pumps, strums, roseboxes and bilges.
- (c) Simple calculation of stresses in spans, derricks, topping lifts, etc. Strength of ropes, chains, slings, two slings at an angle, etc. Purchases and power gained by purchases.
- (d) Cargo Work.—(The candidate should, where possible, illustrate his answers from his own experience.)

Stowage of cargo. General—stowage of bag cargoes, bales, casks, etc.

Bulk stowage. Partition and shifting boards. Ceilings and dunnage. Deck stowage. Possible damage and its avoidance.

Good and bad stowage. Special cargoes—explosives, grain, timber, oil in bulk, steel rails, etc.

Given a cargo list, to stow a hold or holds, making a rough cargo plan, with a view to stability of tender and stiff ships, damage and contamination, easy handling and possible optional ports of discharge.

Methods of ventilation of cargoes. Drainage of holds.

Closing of hatches. Cargo working gear—derricks and winches. Organization of cargo work.

19. Paper 6 (Written).

METEOROLOGY (2 hours)

- (a) The principles of the barometer. How to read it and reduce the readings to standard datum.
- (b) How to observe the force and direction of the wind with no other instrument than the compass and use of the Beaufort scale.
- (c) How to observe and log the state of sea and swell, weather and visibility by the International scales for the use of seamen.
- (d) The principles and use of the thermometer, dry bulb, wet bulb and sea surface.
- (e) Use of hydrometer.
- (f) General knowledge of the wind and current systems of the oceans. How to deduce the set and drift of currents.
- (g) The Laws of Storms. Buys' Ballot's Law. Rules for handling ships in tropical revolving storms. The seasons and localities of tropical revolving storms and their precursory signs.
- (h) The Visual Storm Warning signals.
- (i) The seven fundamental types of weather.
- (j) The elementary principles of synoptic charts, including a knowledge of how the atmospheric pressure distribution and gradient is obtained. Principal cloud types.

Canada Shipping Act—continued

- (k) To draft a wireless weather report and how to decode a weather report made in the International Weather Code, the tables being provided.

20. Oral Portion.

- 1. (a) Shifting large spars and rigging sheers.
- (b) The handling of heavy weights with special reference to strength of gear used.
- (c) Use and maintenance of all deck and above deck appliances and fittings—winches, capstans, windlasses, emergency steering gear, and fittings used between anchor and cable locker. Hoisting in boats.
- (d) Bending, setting and taking in fore-and-aft sails. Management and equipment of ships' lifeboats and number of persons who may be carried in each class of boat.

2. Anchors—different kinds; advantages and disadvantages of each. How to rig a sea anchor and what means to employ to keep a vessel, disabled or unmanageable, out of the trough of the sea and lessen her lee drift. Cables and their care. Preparations for anchoring. Operation of anchoring with single anchor and use of second anchor. Clearing a foul anchor. Mooring. Clearing a foul hawse. Anchoring in a tideway and in a confined space. Dragging anchor. Anchor watch. Slipping a cable. To carry out an anchor with boats. Getting under way.

3. (a) Effect of propellers on the steering of a ship. Stopping, going astern and manoeuvring. Turning circles. Effects of current, wind, sea, shallows, draft.

(b) Coming alongside a wharf, etc. Turning a steamship short round, manoeuvring in rivers and harbours. Emergency manoeuvres. Man overboard.

(c) Management of steamships in stormy weather.

(d) To get a cast of the deep sea lead.

4. (a) Testing lifebuoys and life jackets; other lifesaving gear.

(b) Accidents, e.g., collision, running aground, accidents to hatches, leaks, fires and their treatment. Running repairs. Handling a disabled ship.

(c) A practical knowledge of the screening of ships' navigation lights.

(d) Preparation for dry-docking. Use of shores, bilge blocks and bilge shores.

5. Regulations for prevention of collision at sea—as para. 11, Section 5 (Oral) Second Mate.

6. Signals.—As para. 11, Section 6 (Oral) Second Mate.

7. The Examiner may ask the candidate questions arising out of the written work, if he deems it necessary on account of weakness shown by the candidate.

MASTER (FOREIGN-GOING)

21. Qualifications.—A candidate must not be less than twenty-three years of age, and must have served seven years at sea in foreign-going ships or the equivalent, ten and a half years on home-trade voyages as defined in Section 2, sub-section 38, Canada Shipping Act, 1934. This period of service must include either—

Canada Shipping Act—continued

- (a) One year and six months in a capacity not lower than First Mate of a foreign-going ship whilst holding a certificate of grade not lower than that of First Mate of a foreign-going ship; or
 - (b) Two years and three months in a capacity not lower than that of First Mate on home-trade voyages whilst holding a certificate of grade not lower than that of First Mate of a foreign-going ship; or
 - (c) Two years in a capacity not lower than that of second of three watchkeeping officers, on a foreign-going ship whilst holding a certificate as First Mate of a foreign-going ship; or
 - (d) Two years and six months in a capacity not lower than third of three watchkeeping officers on a foreign-going ship, whilst holding a certificate of grade not lower than that of First Mate of a foreign-going ship; or
 - (e) Three years as Master on home-trade voyages, or one year as Master and three years as Mate, provided that, in either case, he has served in such capacity for not less than one year whilst holding a Second Mate's foreign-going certificate or a certificate of competency as Master for a home-trade passenger or cargo steamship or a square rigged or fore-and-aft rigged sailing vessel.
- (For interpretation of watchkeeping service see para. 44.)

SYLLABUS

22. Paper 1 (Written).

PRACTICAL NAVIGATION (3 hours)

A short recapitulation paper in navigation on the syllabus for Second Mate and First Mate, which should include Chart Work.

23. Paper 2 (Written).

METEOROLOGY (2 hours)

Ocean pilotage, i.e., general knowledge of winds and currents, and the selection of routes according to season. Icebergs, ice signals, and ice navigation.

To be able to plot observations of ships and coast stations, received by wireless, and to construct a simple weather chart. To understand the use of the observation of the change of the barometer by single and collective observations; and to make deductions as to probable changes of weather along the proposed track of his ship.

A general knowledge of the system of wireless weather signals (when one International system is brought about).

24. Paper 3 (Written).

SHIP CONSTRUCTION AND STABILITY (3 hours)

- (a) The direction of simple ship repairs. Drawing up of simple specifications.
- (b) A fuller knowledge of ship construction than in previous examinations. General structure—transverse and longitudinal girders;

Canada Shipping Act—continued

keels, stern frame, stem and rudder post, centre keelson; bilge and side keelsons; side stringers; tank margin, intercostals; transverse framing; shell plating; rudder, propeller brackets, masts and derricks.

Classification of ships. Tonnage—measurement and registration. Freeboard.

Treatment of accidents and damage—collision, springing leaks.

Possible strains incurred by action of waves, improper loading or ballasting, etc.

Working of ship, division of loads.

- (c) Stability diagrams and use of stability curves and information. Effect of beam and freeboard on stability. Practical operations to ensure ship stability at sea. Ship with a list. Management of ballast tanks. Effect of the free liquid surfaces and risks of flooding hold spaces, filling and emptying tanks at sea. Suspended weights and shifting cargoes. Deck cargoes. Homogeneous cargoes. Ballasting. Effect of admission of water into interior of a ship. Flooded compartments. Stability and trim of a stranded ship. Trim—moment to change trim.

25. Paper 4 (Written).

ENGLISH (2 hours)

This paper will test the candidate's ability to write clear and grammatical English, with good spelling and penmanship. It will be in no sense a test of technical or legal knowledge.

26. Paper 5 (Written).

SHIPS BUSINESS (2 hours)

(The legal information required will not go beyond the outline of Mercantile Law which the shipmaster must know for practical purposes.)

(a) The official log and reports on exceptional entries.

(b) A shipmaster's knowledge of the law relating to:

- (1) Engagement, discharge and management of a ship's crew. Ship's articles of agreement. Discipline and treatment of offences. Wages and other remuneration. Food and accommodation. Entering and clearing the ship. National Insurance of crew.
- (2) Tonnage, lifesaving appliances, salvage and assistance and, in general, the safety of ship, crew and passengers.
- (3) Loadline marks and entries and reports to be made respecting them. Surveys required by law.
- (4) Hygiene of ships, living spaces, holds, etc. Water. Fresh and preserved food. Infectious diseases. The law relating to them and the procedure on board in such case. Quarantine procedure. Recognition and simple treatment of common illness, e.g., fevers, etc. (See the Ship Captain's Medical Guide.)
- (5) The carriage of emigrants.

(c) A simple knowledge of the law relating to cargo, including a knowledge of shipowners' liabilities in carriage of cargo.

Canada Shipping Act—continued

- (d) A general knowledge of shipping business and documents—charter parties, bills of lading, etc. A knowledge of average—general and particular. Flotsam and jetsam.

27. Paper 6 (Written).**MAGNETIC COMPASS (2 hours)***Proofs of formulæ not required*

- (a) Terrestrial magnetism:—Variation. Local attraction. Horizontal force and its varying strength in different parts of the globe with the effect of its change upon deviation.
- (b) Properties of magnets.—Meaning of the terms “Hard” and “Soft” Iron. Effects of magnets on compass needle under varying conditions. Precautions with regard to electric lighting loads and other electric fields. Sub-permanent magnetism and its effects at sea.
- (c) Compass compensation.—Methods of swinging ship to obtain a deviation table. Use of curves of deviation. Constant semi-circular and quadrantal deviation. To analyse a table of deviation, obtaining and explaining the approximate co-efficients A, B, C, D, E. General principle of compass correction and the method of correction of B, C and D.
- (d) Heeling error.—The nature of the deviation caused and the effect on a ship with a list and when rolling. Method of correction.

28. Paper 7 (Written).**ENGINEERING KNOWLEDGE (including carriage of refrigerated cargoes)
(3 hours)**

(The requirements will not go beyond the knowledge that could be obtained by a deck officer who takes an intelligent interest in the machinery of the ship and supplements by a little reading what he has learned in this way)

- (a) The meaning of general engineering terms, e.g., horsepower, slip and pitch of propeller, link, latent heat of steam, superheated steam, etc.

A general knowledge of a marine boiler and furnaces, and the procedure for raising steam. The general action of a reciprocating steam engine. Principle of the condenser. Distribution of steam from boiler to engines—valves and pipelines. Admission to engine—slide valves, eccentrics, expansion link. Starting gear. Simple description (without detail) of various parts of engines and boilers—e.g., connecting rod, crank, piston and rings, packing of piston rods, relief valves and cylinder drains, line shafting, couplings, tail shaft, stern tube and packing. Auxiliaries and their uses—circulating pump, air pump, feed pump, bilge pump. Action of propeller. Thrust block. Attachment of propeller to shaft.

Oil fired furnaces and use of oil fuel. A simple knowledge of turbine machinery and of Diesel engines. Warming up and turning engines. Stopping and going astern—how done. A knowledge of what is required in the engine room on the receipt of manoeuvring orders from the bridge. Fuel consumption and economical speeds. Power and speed curves. Effect of alterations of speed on fuel consumption and estimation of adequacy of fuel to complete a given voyage.

Canada Shipping Act—continued

- (b) An elementary knowledge of refrigeration on board ship. Types of refrigeration on board ships. Types of refrigeration employed in special cases. Stowage and general handling of refrigerated cargoes.

29. Oral Portion.

1. (a) Exceptional circumstances—loss of rudder; shifting a damaged rudder. Construction of jury rudders. Making and launching of rafts. Collision. Leaks. Damage of all kinds. Running repairs and precautions in case of accidents. Grounding—methods of refloating. Beaching a vessel. Steps to be taken when disabled and in distress.
- (b) Preservation of crew and passengers in the event of wreck. Abandoning a wrecked ship. Rockets and rocket apparatus. Communications with the shore.
- (c) Assisting a vessel in distress. Rescuing crew of a disabled ship.
- (d) Towing and being towed.
- (e) Bad weather manoeuvres. Precautions at anchor and at sea. Use of oil.

Anchoring and working anchors and cables in all circumstances. Approaching rivers and harbours and manoeuvring in them.

- (f) Drydocking. General procedure and precautions to be observed. Distribution of weight. Drydocking with full cargo for inspection of propellers or shafting. Bilge beds. Leaving the vessel water borne. Putting into port with damage to ship and/or cargo, both from business and technical points of view. Safeguarding of cargo.
- (g) Prevention of fire at sea. Spontaneous combustion of fuel cargoes. Full knowledge of the use of fire extinguishing appliance and precautions to be observed in cases of danger to life. Special reference to extinguishing of oil fuel fires.
- (h) Methods of fumigating holds and living spaces and safeguards in applying them.
- (i) General organization of ship's work and handling of crew.
- (j) Compensation and adjustment of compass by Beall's Compass Deviascope.

2. Regulations for prevention of collisions at sea, etc. As para. 11, Section 5 (Oral) Second Mate.

3. Signals. As para. 11, Section 6 (Oral) Second Mate.

4. The Examiner may ask the candidate questions arising out of the written work, if he deems it necessary on account of weakness shown by the candidate.

30. Sailing ship endorsements.—A candidate for a sailing ship endorsement of any grade who has not previously held an endorsement of a lower grade or an ordinary certificate issued prior to these rules being brought into force, must prove that he has served at least twelve months in foreign-going sailing ships or eighteen months in home-trade sailing ships, square rigged or fore-and-aft rigged, as the case may be. Service in vessels with auxiliary steam or motor power, which use their propelling machinery only in calms or during light winds, is considered as service performed in sailing vessels.

Subject to the above qualifications a candidate may be examined for a sailing ship endorsement of any grade at the same time as he is examined

Canada Shipping Act—continued

for a certificate of competency of the same or of a higher grade. If a candidate desires to be examined for a sailing ship endorsement only, he must possess a certificate of competency of at least the same grade as the endorsement which he requires.

31. Second Mate, Sailing Ship endorsement.—The candidate must understand and give satisfactory answers on the following subjects:—

- (a) The standing and running rigging of ships.
- (b) Bending, unbending, setting, reefing, taking in, and furling sail.
- (c) Sending masts and yards up and down, etc.
- (d) Management of a ship when under canvas.
- (e) The Rule of the Road as regards sailing vessels, their regulation lights and fog and sound signals.
- (f) Any questions appertaining to the duties of a Second Mate of a sailing ship that the Examiner may think necessary to ask.

32. First Mate, Sailing Ship Endorsement.—In addition to the qualifications required for a Second Mate's sailing ship endorsement, the candidate will be required to show a knowledge of the following subjects:

- (a) Shifting large spars, rigging sheers, taking lower masts in and out.
- (b) How to moor and unmoor ship; to keep a clear anchor; and to carry out an anchor.
- (c) How to manage a ship in stormy weather, and to cast a ship on a lee shore.
- (d) How to secure the masts in the event of accident to the bowsprit.
- (e) How to rig purchases for getting heavy weights, anchors, machinery, etc., in or out.
- (f) How to get a cast of the deep sea lead in heavy weather.
- (g) Accidents, and how to deal with them.
- (h) Any other questions appertaining to the duties of an Only or First Mate of a sailing ship which the Examiner may think necessary to ask.

33. Master, Sailing Ship Endorsement.—In addition to the qualifications required for the sailing ship endorsement for Second and First Mate, the candidate will be required to show a knowledge of the following subjects:

- (a) Management of a ship in heavy weather,
- (b) Rescuing the crew of a disabled vessel.
- (c) Steps to be taken when a ship is on her beam ends, or in any danger or difficulty, or disabled or unmanageable and on a lee shore.
- (d) Heaving a keel out.
- (e) Any other questions appertaining to the management of a sailing ship which the Examiner may think it necessary to ask.

34. First aid to the injured.—(a) Every candidate for a certificate of competency of any grade will be required to produce a certificate from the St. John's Ambulance Association, the St. Andrew's Ambulance Association, the St. Patrick's Ambulance Association, the London County Council or other approved body to the effect that he has passed an examination in First Aid to the Injured.

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- (b) The certificate must be an adult certificate, *i.e.*, obtained by the candidate when sixteen years of age or more, and the examination for it must have been passed not more than three years before the date of the examination for the certificate of competency. Certificates issued by the St. John's Ambulance Association more than three years before the examination for a certificate of competency, will, however, be accepted, provided that, at the expiration of three years since its issue, the certificate has attached to it the "Voucher" or "Label" of the Association certifying that the holder has passed re-examination in First Aid.
 - (c) If a candidate does not possess such a certificate of proficiency in First Aid he should apply some time before he wishes to sit for examination for a certificate as master or mate to the local secretary of one of the approved associations, who will inform him of the available facilities for the instruction and examination of candidates in First Aid.
 - (d) Besides the courses of instruction which are provided on shore at the ports in Canada, at which examinations for certificate as master and mate are held, courses of instruction given by qualified surgeons on board merchant vessels, will be accepted by the St. John's Ambulance Association as qualifying the candidate for examination for their certificate of proficiency in First Aid, provided the surgeon certifies that he has followed the syllabus of instruction laid down by the Association.
 - (e) The St. Andrew's Ambulance Association will also accept instruction by a ship's surgeon on board ship as qualifying a candidate for examination for their certificate of proficiency in First Aid, provided their syllabus is followed. In this case the candidate must previously have enrolled and obtained an attendance card, by applying to the local secretary of the Association.
 - (f) It will not be necessary for the candidate for a certificate as master or mate in all cases to produce the formal certificate of proficiency in First Aid issued by the Associations. In order to prevent delay in proceeding with the examination for the certificate as master or mate and in the issue of the certificate to successful candidates, the special Mercantile Marine linen certificate issued by the St. John's Ambulance Association and duly signed by the Lecturer, the Surgeon Examiner, and the Association's local representative, to the effect that the candidate has passed the examination for a certificate of proficiency may be accepted as showing that the candidate possesses the required knowledge of First Aid.
- 35. Sight Tests.** (a) Every candidate for a certificate of competency must pass the prescribed sight tests before a certificate can be issued to him. If circumstances render it necessary for him to proceed with the examination in navigation and seamanship before undergoing the sight tests, he should be informed that the examination in navigation and seamanship will be cancelled in the event of his failure to pass either of the sight tests.
- (b) *Letter Test.*—Every candidate for a certificate must pass the letter test. If he obtained a certificate of competency before January 1, 1914, he will only be required to possess half normal vision using both eyes together. Otherwise he must pass a higher standard, *viz.*, normal vision using both eyes or either eye separately.

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Any candidate who has obtained his first certificate under these conditions may obtain his higher certificates.

Detailed information with regard to the conduct of the examination and the standards required is contained in Appendix B.

- (c) *Lantern Test.*—Every candidate must undergo the lantern test on every occasion on which he presents himself for examination for his first certificate of competency; but, if he then passes, he will not be required to undergo the lantern test on any subsequent occasion.

No person who holds a certificate of competency should be examined in the lantern test.

- (d) A candidate who fails to pass the prescribed letter test may present himself for re-examination at intervals of three months.
- (e) A candidate who fails to pass the lantern test may appeal to the Minister of Transport, who may if he thinks fit remit the case to a special Examiner or Board of Examiners for final decision.
- (f) Only Examiners who have themselves passed the lantern tests are to undertake these examinations.
- (g) The fee paid for examination for a certificate of competency includes the fee of one dollar for examination in letter and lantern tests, and if the candidate fails to pass those tests, this fee will, with the exception of one dollar, be returned to him.

The sight tests are open to all persons serving or intending to serve in the mercantile marine or in fishing vessels, and all such persons are recommended to take the earliest opportunity of ascertaining whether their vision is such as to qualify them for service in that profession. Any such person, if desirous of undergoing the tests, must make application to the nearest Examiner of Masters and Mates and must pay the fee of one dollar.

This fee will be payable on each occasion on which a candidate is examined.

Where a candidate fails in the "Letter Test" he may, if he wishes proceed with the "Lantern Test" for his own satisfaction.

36. Voluntary examination in compass deviation.—Any person holding a foreign-going Certificate of Competency of any grade who wishes to pass a Voluntary Examination in Compass Deviation, can at any time be examined upon filling up the usual form of application and paying the prescribed fee to the Examiner. If the candidate passes the examination an endorsement to that effect will be made on his Certificate. The syllabus of examination shall be based on the following:

Magnetism and Electricity, including the

MAGNETIC COMPASS. (Paper 3 hours)

Electric currents and their production. Simple cells. Electromotive force, resistance and current. Ohm's Law. Polarisation. Magnetic fields and lines of force. Induced magnetism. Hard and soft iron. The magnetic field of conductors. Carrying current. Solenoids and Electromagnets. Terrestrial magnetism. Horizontal force, vertical force, and dip. The effect of magnetic fields of all descriptions on the compass needle. Elementary principles of dynamos and motors. Application to winches. Electric lighting and arc lights.

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A fuller knowledge of the syllabus in Compass Correction for Master, with, in addition, the correction of coefficient E. The components of the permanent magnetism of the ship, P, Q and R; the soft iron rods, a, c, e and k. The relation severally of these components and rods to the various coefficients and to heeling error.

Swinging ship. Construction of deviation tables by bearings of a distant object, reciprocal bearings and azimuths of a heavenly body. Practical analysis of a deviation table and practical compass correction.

37. Voluntary examination in signalling.—All persons who hold or have passed for or are candidates for a Certificate of Competency of any grade may undertake the Voluntary Examination in Signalling upon filling up the usual form of application and paying the prescribed fee to the Examiner. If the candidate passes, the fact, with the date of passing, will be recorded upon his Certificate of Competency. The candidate will be required to attain a minimum speed of 12 words a minute in semaphore and 10 words a minute in morse flashing. (see Appendix "A").

CHAPTER II

RULES FOR ESTIMATING SEA SERVICE

38. Sea Service.—In these regulations sea service is reckoned from the commencement to the termination of the voyage. The certificates of discharge for service on foreign-going ships will generally be accepted as proof of sea service, but certificates of discharge for service in the home-trade must always be verified. Examiners will be careful to see that these discharges have not been in any way tampered with, and will report any suspicious cases to the Supervising Examiner of the Division.

For all certificates of competency as master or mate in the Mercantile Marine, the qualifying service usually required is service performed in ordinary trading vessels. While these Regulations provide for the acceptance in part of certain kinds of non-trading service, non-trading service not specially provided for in these Regulations cannot be accepted as qualifying service unless it has been submitted to the Minister of Transport and his sanction obtained.

39. Sea service for foreign-going certificates.—For foreign-going certificates the term "sea service" means, unless otherwise stated, service performed in foreign-going vessels.

40. Officer's service on home-trade voyages.—Service in a lower grade than First Mate on home-trade voyages will not, except as provided in the following paragraph, be recognized as officer's service towards qualifying a candidate for examination for a foreign-going certificate of competency.

41. Service on home-trade voyages.—Service on home-trade voyages may be allowed to count towards qualifying a candidate for examination for a certificate of competency for foreign-going ships; but such service will only be accepted as equivalent to two-thirds of the time served in a foreign-going ship; provided, that where service on voyages extends from a port in Canada to a port south of the thirty-fifth parallel of North Latitude, and where service on voyages south of the thirty-fifth parallel of North Latitude covers a non-stop run between two ports of at least 500 miles; the service will be recognized as equivalent in all respects to service in foreign-going ships.

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Service on voyages north of the thirty-fifth parallel of North Latitude, which is claimed as equivalent in all respects to foreign-going service, may be accepted if the following conditions are complied with.

The ship must be a foreign-going ship operating on foreign-going articles; the service must be entirely on the sea coast outside partially smooth water limits, and must cover a non-stop run between two ports of at least 500 miles.

42. Nature of service determined by actual position on board ship.—Sea service, in whatever trade it may be performed, cannot be regarded as qualifying for examination for certificates of competency unless it can be verified by reference to the articles of the ship in which it was performed.

43. Officer's service.—In these regulations service as First Mate means service as the officer next in seniority to the Master. Service as Junior or Auxiliary First Mate, or as First Mate under a "Chief Officer" will count as equivalent to service as the second of three watchkeeping officers for qualifying purposes. The facts in each case must be clearly established by the candidate's certificates of watchkeeping service.

44. Watchkeeping service.—(a) For First Mate—When service in charge of a watch is specified in the Regulations, candidates for certificates of competency as First Mate must be able to prove that out of the 18 months' service required, at least 15 months have been spent in effective charge of a watch for not less than 8 hours out of each 24 hours' service claimed. If watches are doubled occasionally during a voyage and an officer normally in charge of a watch then acts as junior of the two officers on watch together, he may count half the time served under doubled watches for the purpose of making up the remaining three months of the prescribed period of qualifying service. The exact nature of a candidate's service must be clearly established by one or more certificates signed by the Master in the form indicated in Appendix D.

(b) For Master—During the whole of the qualifying service between First Mate's and Master's certificates that is specified by the Regulations, candidates for a Master's Certificate will be required to have served in full charge of a watch for eight hours out of every twenty-four hours' service at sea. If performed on a voyage during part of which watches have been doubled such service will be accepted only on condition either:—

- (i) That, during the period when watches were doubled, the candidate served as the senior of two bridge-keeping officers; or
- (ii) If the candidate served as the junior of two bridge-keeping officers, that the Examiner is satisfied that watches have been doubled only occasionally in circumstances calling for the exercise of special care in the navigation of the vessel.

In the latter case the time during which watches were doubled will not count as qualifying but the remainder of the voyage may be accepted.

The whole period of watchkeeping service claimed by a candidate must be covered by one or more certificates made out and signed as prescribed in Appendix D.

45. Service in possession of certificate.—Officer's service, to be recognized as qualifying for purposes of examination, must be performed with the requisite British certificate. The officer's service performed by men who have been duly promoted during the course of a voyage or who, in consequence of serving in vessels plying between ports abroad, have been unable to obtain the necessary certificates, may, however, be recognized, provided that it is in other respects satisfactory.

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46. Promotion during voyage.—Whenever a man has, from any cause, been regularly promoted on the occurrence of a vacancy in the course of the voyage from the rank in which he first shipped, and such promotion, with the ground on which it has been made, is properly entered in the articles and in the official log book, he will receive credit for his service in the higher grade for the period subsequent to his promotion.

47. Mixed service.—Where a candidate has performed his sea service in more than one capacity, or partly in foreign-going voyages and partly in "home-trade voyages," proportionate allowances will be made for each kind of service, provided that in other respects it complies with the Regulations.

48. Evidence as to service in Foreign vessels.—The testimonials of service of British officers and seamen serving in foreign vessels, which cannot be verified by the Examiner, must be confirmed either by the Consul of the country to which the ship in which the candidate served belonged or by some other recognized official authority of that country, or by the testimony of some credible person having personal knowledge of the facts required to be established. The production, however, of such proofs will not of necessity be deemed sufficient. Each case will be decided on its own merits, and if the sufficiency of the proofs given appears to be at all doubtful, it must be referred to the Supervising Examiner of Masters and Mates of the Division, who will, if necessary, transmit it to the Deputy Minister of Transport for decision.

49. Excursion steamers.—In the case of excursion steamers only such service as can be proved to have been performed at sea will be accepted.

50. Service as carpenter, sailmaker, cook, steward, etc.—Candidates whose service has been performed in capacities other than apprentice, midshipman, cadet, ordinary seaman or able seaman, e.g., men who have served as carpenter, or sailmaker, or as cook in small vessels where cooking is only a part of a man's duty—will be required to satisfy the Examiner that they have during the whole time claimed performed deck duties in addition to their own particular work, and that they have a good knowledge of seamanship. These facts may possibly be proved by the production of satisfactory certificates from the Masters with whom the candidate has served; but such service will only be accepted as equivalent to two-thirds of the time served as ordinary deck hand. Failing satisfactory evidence, the applicant will be required to perform additional service in the capacity of seaman. Service as cook (under other conditions than the above), or as steward, purser, or in engineroom will not be accepted.

51. Service as Wireless Operator.—If a candidate has been engaged on Articles of Agreement as seaman, or in any seaman rating, and has served both as a seaman and a wireless operator, two-thirds of such service may be counted as qualifying service; but the candidate must prove that during the whole period claimed he performed deck duties in addition to the duties of a wireless operator.

If a candidate has been engaged on Articles of Agreement as a wireless operator, and has performed deck duties in addition, two-thirds of such service may be counted as qualifying service, provided that the candidate can produce a certificate from the Master to the effect that he has performed deck duties throughout the voyage for a reasonable proportion of time each day, and that he has not spent more than two hours a day on regular wireless watch.

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If a candidate has been engaged on Articles of Agreement as a wireless operator, and has only served as such, one-quarter of the service may be counted as qualifying service, but no amount of such service will be allowed to count as more than 12 months qualifying service.

52. Apprentices.—The whole of the time claimed under indentures of apprenticeship will be accepted as actual sea service to qualify for a Second Mate's certificate provided (a) that the indentures have not been cancelled through some fault of the candidate, but are endorsed by the Owner or Master to whom he was bound to the effect that he has performed his service faithfully during the time he remained as apprentice; and (b) that the candidate has served at sea four-fifths of the time claimed, that is to say, has not spent more than one-fifth of the time in home ports.

In cases where an apprentice is qualified for examination before the expiration of his indentures, e.g., where he has had training ship or other sea service prior to being bound, which, together with his actual time as apprentice, makes up the required four years, or where his indentures are for a period of more than four years, a letter from the Owner or Master will be accepted in place of the endorsement referred to above.

In the event of the candidate being short of the required four-fifths of the time claimed as apprentice, he will be required to show sufficient additional sea service, either as seaman or junior officer, to make up the four-fifths of the time claimed.

53. Midshipmen and cadets.—The whole of the time served as midshipman or cadet under indentures will also be accepted subject to the same conditions as those laid down for apprentices; and the same will be the case even when not bound by indentures, provided that the service as midshipman or cadet has been continuous, that on the date of the termination of the period of service claimed in this capacity the candidate was on Articles of Agreement, and that he is able to comply with the requirements laid down in the matter of serving or making up the four-fifths period at sea during the time claimed.

54. Service in lightships or engineroom.—Service in lightships or in an engineroom will not be accepted as sea service.

55. Service in the Royal Canadian Naval Reserve.—Lieutenants and sub-lieutenants of the Royal Canadian Naval Reserve who undergo training in the Royal Canadian Navy will, if accompanied by a good report be allowed to count half the time so spent in lieu of qualifying watch-keeping service for certificates of competency as Master or First Mate, subject to a maximum allowance of six months for each grade of certificate.

Candidates for First Mate and Master shall produce the usual watch-keeping certificate signed by the Commanding Officer of the ship they have been serving in.

56. Training Ships.—Time served after the age of 14 on board an approved training ship will be allowed to count as equivalent to one-half the same time spent in service at sea, up to a limit of two years (i.e., no length of service will be allowed to count as more than one year at sea) provided that the candidate can produce a satisfactory certificate from the Committee or Captain Superintendent testifying to his good conduct and proficiency down to the time of his leaving the ship. Training ship service will not be regarded as equivalent to service in square-rigged vessels.

A similar concession is allowed in the case of time spent at the Nautical College, Pangborne.

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57. Service in fishing or pilot vessels.—Service performed exclusively in trawlers and other deep-sea fishing vessels, or in pilot vessels, will not qualify a candidate for examination. He must in addition prove that he has served for at least eighteen months in a foreign-going trading vessel, or the equivalent period, twenty-seven months, in home-trade voyages.

58. Service in yachts.—Service in pleasure yachts will be accepted as qualifying service under the following conditions:—

- (a) It must in all cases be verified by satisfactory proofs, which must set forth clearly and in detail the nature and duration of the service claimed; and it must be distinctly understood that only actual sea service will be accepted, and that service in harbour or port is inadmissible.
- (b) Service in foreign-going yachts will be accepted in full; and service performed within home-trade voyage limits in sailing yachts of not less than 50 tons net register or in steam yachts of not less than 80 tons gross register will be accepted in the proportion of two-thirds of the time served on foreign-going ships; but candidates for a foreign-going certificate must also show service for at least eighteen months in an ordinary foreign-going trading vessel, or for the equivalent period, twenty-seven months, in an ordinary trading vessel on home-trade voyages.
- (c) Service within home-trade voyage limits in sailing yachts of 20 tons net register, or in steam yachts of 40 tons gross register, will be accepted towards qualifying a candidate for a foreign-going certificate as equivalent to half the same time served in a foreign-going trading ship, but no amount of such service shall count as equivalent to more than two years service on a foreign-going trading ship, and no such service shall count as officer's service to qualify candidates for foreign-going certificates.
- (d) Service within home-trade voyage limits in sailing yachts of less than 20 tons net register, or in steam yachts of less than 40 tons gross register, will not be accepted as qualifying service for any class of certificate.

59. Service on rivers and partially smooth waters.—Service performed on rivers, no matter of what size, and service performed within smooth or partially smooth water limits will not be accepted.

60. Service on lightships.—Service on lightships will not be accepted as sea service.

61. Service on cable ships.—A candidate, a part of whose qualifying service has been performed in cable ships, will be required to produce, in addition to the usual evidence of sea service, a statement or certificate from the Owners of the ship showing the amount of time actually spent at sea. If the time so spent constitutes or exceeds two-thirds of the total time on articles, this total time may be accepted in full as qualifying service, but in the event of the actual sea service falling below this proportion, the deficiency may be made up by additional service at sea before the total time on articles can be accepted in full as qualifying service.

62. Service not provided for in these Regulations.—Service not provided for in these regulations may be recognized upon particulars thereof

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being submitted to the Supervising Examiner of the Division who, in any case where he may consider it necessary, may submit the case with his remarks regarding same to the Deputy Minister of Transport for consideration.

Upon the consideration of any such submission, the Supervising Examiner or the said Deputy Minister shall be guided in making a decision thereon as nearly as circumstances may permit by the regulations of the British Board of Trade.

63. Qualifying service in merchant vessels during the war.—Sea service performed as Master or Mate during the war in merchant ships, while holding a lower grade certificate than required under these Regulations or without any certificate, shall be accepted as qualifying service for examination for a certificate as Master or Mate, provided the applicants otherwise comply with these Regulations.

64. Qualifying service in Naval vessels during the war.—

- (a) An applicant for a certificate under these Regulations who was an officer of the Executive Branch, or a rating of the Seamen Branch of the Royal Canadian Naval Reserve, may count as qualifying sea service the full time served in any of His Majesty's ships of the following classes—cruisers, armed merchant cruisers, destroyers, corvettes, minesweepers, armed yachts, coastal patrol vessels, examination vessels or other vessels of the same class.
 - (i) The applicant for a Certificate where watchkeeping service is required must be in possession of a watchkeeping certificate signed either by the Commanding Officer, if he has served on a destroyer or other of His Majesty's ships having a complement of 150 men or over, or by the Naval Officer in charge or Commanding Officer of Flotilla or parent ship, in the case of small craft.
 - (ii) The applicant holding a watchkeeping certificate shall, before being admitted to the examination, show the necessary officers' service while holding the Certificate of Competency required by these Regulations.
 - (iii) The watchkeeping certificate shall be authenticated by Naval Service Headquarters, Ottawa. In addition to the watchkeeping certificate, the applicant shall furnish on the application form a record of qualifying time served in the Naval Service which also shall be authenticated by Naval Service Headquarters, Ottawa.
- (b) The full time served at sea by officers of the Executive Branch and ratings of the Seamen Branch of the Royal Canadian Navy and of the Royal Canadian Naval Volunteer Reserve may be accepted as qualifying sea service for examination for a Certificate of Competency as Second Mate Foreign-going, up to a maximum of one year less than that required for the certificate applied for, provided that such service was performed in a qualifying capacity and was not otherwise performed in gate vessels, depot ships, harbour craft or vessels of a similar nature. If an applicant who was a member of the Royal Canadian Navy or of the Royal Canadian Naval Volunteer Reserve holds a Certificate of Com-

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petency, his officer's service while holding such certificate may count in the same manner and to the same extent as officer's service in the Royal Canadian Naval Reserve. Otherwise, the applicant shall comply with these Regulations.

65. *Qualifying service in vessels of the Canadian Army during the War.*—Qualifying service in vessels of Water Transport Sections of the Royal Canadian Army Service Corps may be accepted for examination for Masters' and Mates' Certificates provided such service complies with these Regulations. Applicants shall produce credentials certified by the Commanding Officer.

66. Applicants for examination who have been prisoners-of-war will be entitled to a remission, not exceeding six months of the required sea service, for the period of captivity by the enemy. Such applicants shall submit their credentials to the Department of Transport for approval.

67. An applicant for examination who can produce satisfactory evidence that he has been prevented by the exigencies of war from taking the examination for a Certificate of higher grade as required by these Regulations at the earliest date at which he was qualified to do so, may count any qualifying watchkeeping service which he has performed after that date as Officer's service for a Certificate of Competency as Master or Mate.

CHAPTER III

CONDUCT OF THE EXAMINATION

68. The examinations will begin at 10 a.m. on each day. A regular luncheon interval will be given each day between 1 p.m. and 2 p.m. As far as possible, candidates will be given ample notice of the day and time of their oral examination. The time allotted for each written part of the examination for each grade of certificate will be as follows:—

1. SECOND MATE (Foreign-going)

First day—

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|---|---------|
| (1) Knowledge of Principles..... | 3 hours |
| (2) Practical Navigation I (including Tides)..... | 2 hours |

Second Day—

- | | |
|-----------------------------------|---------|
| (3) Practical Navigation II | 3 hours |
| (4) Chart Work | 2 hours |

Third Day—

- | | |
|--|----------|
| (5) Cargo Work and Elementary Ship Construction..... | 3 hours |
| (6) English | 1½ hours |

Fourth or Subsequent Days—Orals.

2. FIRST MATE (Foreign-going)

First Day—

- | | |
|----------------------------------|---------|
| (1) Practical Navigation I | 3 hours |
| (3) Chart Work | 2 hours |

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(4) Ship Construction and Stability	3	hours
(2) Practical Navigation II	2	hours

Third Day—

(5) Ship's Maintenance, Routine, and Cargo Work.....	3	hours
(6) Meteorology	2	hours

Fourth or Subsequent Days—Orals.**3. MASTER (Foreign-going)****First Day—**

(1) Practical Navigation	3	hours
(2) Meteorology	2	hours

Second Day—

(3) Ship Construction and Stability	3	hours
(4) English	2	hours

Third Day—

(5) Ship's Business	2	hours
(6) Compass	2	hours

Fourth Day—

(7) Engineering Knowledge (including carriage of refrigerated cargoes)	3	hours
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Fifth and Subsequent Days—Orals.

69. Candidates to be punctual.—Candidates are required to appear at the examination room punctually at the time appointed.

70. Silence.—Perfect silence is to be preserved in the examination room.

71. No strangers admitted.—No person will be allowed in the room during the examination, other than those whose duties require them to be present.

No instructors will be allowed on the premises.

72. Loose papers and books removed.—Before commencing the examination, the tables or desks must be cleared of all scraps of paper or books that are not used in the examination.

73. Use of books and tables at the examinations.—The following tables and books will be supplied by the Department at the examination rooms:

Nautical Tables (including logarithm tables) Norie (full edition).
Raper (full edition).

Alt. Azimuth Tables—Burdwood, Davis.

Admiralty Tide Tables—Parts I and II.

Nautical Almanac—1929 Abridged Edition.

Candidates who wish to use other tables than the above may bring such tables into the examination room, on condition that they submit them to the Examiner before the commencement of the examination for scrutiny and approval. These tables must contain no manuscript notes.

Subject to the Examiner's approval, no restriction will be placed on the use of any tables, but candidates must understand the theory on which

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the tables are based and such tables must be capable of giving an answer within the required limits of accuracy (see paragraph 86). When tables other than those supplied by the Department are used in answering a question, the name of the tables and a note of what is actually obtained from them should be stated on the candidate's paper.

74. *Unauthorized books and papers strictly forbidden.*—Candidates are prohibited from bringing into the examination room books or papers of any kind whatever other than mathematical tables. The slightest infringement of this regulation will subject the offender to all the penalties of a failure, and he will not be allowed to present himself for re-examination for a period of three months. A candidate who uses his own mathematical tables or instruments without first obtaining the permission of the Examiner will be subject to the same penalty.

75. *Injury to books, instruments, etc.*—If a candidate defaces, blots, writes in, or otherwise injures any book or form or damages any instrument belonging to the Examiner, his papers will be retained until he has replaced the damaged book, document or instrument. He will not be allowed to remove the damaged book or document or instrument, and will be subjected to all the penalties of a failure.

76. *Instruments are provided.*—All instruments necessary for use in the examinations are supplied by the Department of Transport.

77. *Leaving room or building.*—No candidate may leave the examination room without permission and without giving up the paper on which he is engaged. Under no circumstances will a candidate be allowed to leave the building while the examination is proceeding. Violation of this rule will subject the candidate to all the penalties of a failure.

78. *All work to be shown.*—No candidate will be allowed to work out his problems on waste paper, or to write on the blotting paper supplied for his use in the examination. Violation of this rule will subject the candidate to all the penalties of a failure.

A sheet of blotting paper should be issued to each candidate with the first examination paper and it must be returned to the Examiner when the last paper is completed each day. The Examiner will be careful to see that the blotting paper has not been used by the candidate in solving his problems, or for conveying information to other candidates.

79. *Copying, etc., to be prevented.*—Candidates should be so placed as to prevent one copying from another, and no communication whatever between the candidates should be allowed.

80. *Penalty for copying, etc.*—In the event of any candidate being discovered referring to any book or paper or copying from another, or affording any assistance or giving any information to another, or communicating in any way with another during the time of examination, or copying any part of the problems for the purpose of taking them out of the examination rooms, he will subject himself to all the penalties of a failure, and will not be allowed to be examined for a period of six months.

A candidate guilty of a second offence will not be allowed to be examined until twelve months have elapsed.

81. *Marking and conduct of the written examination.*—The marking of the whole of the written portion of the examination will be carried out by the Supervising Examiner of Masters and Mates of the Division. For

Canada Shipping Act—continued

his written work the candidate will be furnished with sheets of the blank ruled paper which is supplied for the purpose, with instructions that he is to work or write on one side of the paper, and to answer in a clear and legible hand each of the questions on the paper, and to commence each answer by writing in the margin the number of the question to which it relates.

82. Percentage of marks required for a pass in the written examination.—To pass in the written portion, a candidate will be required to obtain 70 per cent of the total marks for all subjects, and he will also be required to obtain a minimum of 50 per cent in each of the following subjects:

Second Mate (Foreign-going)—

Knowledge of principles
Practical Navigation (I and II)
Chartwork

First Mate (Foreign-going)—

Practical Navigation (I and II)
Chartwork
Ship Construction and Stability

Master (Foreign-going)—

Practical Navigation
Ship Construction and Stability
Ship's Business
Compass
English

83. Marks allotted to each paper.—The table of marks given below shows the number of marks allotted to each paper in the written examination.

(a) SECOND MATE

	Duration of paper hrs.	Marks
Knowledge of Principles.....	3	150
Practical Navigation I.....	2	150
Practical Navigation II.....	3	200
Chart Work	2	200
Cargo Work and Ship Construction.....	3	200
English	1½	100
		<hr/> 1,000

(b) FIRST MATE

	Duration of paper hrs.	Marks
Practical Navigation I.....	3	200
Practical Navigation II.....	2	150
Chart Work.....	2	150
Ship Construction and Stability.....	3	200
Cargo Work, etc.....	3	200
Meteorology	2	100
		<hr/> 1,000

Canada Shipping Act—continued

(c) MASTER

	Duration of paper hrs.	Marks
Practical Navigation	3	200
Meteorology	2	100
Ship Construction and Stability	3	200
English	2	100
Ship's Business	2	100
Compass	2	150
Engineering Knowledge	3	150
		<hr/> 1,000 <hr/>

84. Corrections by tables.—In the knowledge of Principles paper for Second Mate the corrections by inspection of tables given in some of the works on navigation will not be allowed; every correction must appear on the papers of the candidates.

85. Candidates may use own method.—Candidates will be allowed to work out the various problems according to any method they have been accustomed to use, provided such method is correct in principle.

86. Degree of precision required.—When making calculations for obtaining a ship's position candidates are expected to work to 0.2 of a minute of arc and to the nearest second of time.

The method of calculation used in obtaining a position line should be capable of giving an answer within 0.5 of a mile.

In calculation of compass errors, bearings and courses, the answer should be worked to within 0.25 of a degree, but in chart work 0.5 of a degree is sufficient.

In calculating the correction to apply to soundings the candidate is not required to work to the exact inch, as is sometimes done. It will be sufficient if he brings his answer within half a foot or so of a precise result.

87. Supplementary viva-voce.—Candidates may be examined orally as to their knowledge of their written and worked papers, if the Examiner deems it necessary on account of weakness shown by the candidate.

88. No candidate to be examined in successive weeks.—A candidate will not be allowed to undergo examination for the same grade of certificate twice in successive weeks, unless, under very special and urgent circumstances, the Examiner should see fit to relax this rule. In that case a special set of problems should be applied for.

89. Compass deviation.—In answering questions on the tentative method of compass adjustment, the candidate will be tested by Beall's Compass Deviascope.

90. Sextant.—Particular attention should be paid to the sextant, the examination in which will be conducted orally and practically. Every candidate will be required to measure both vertical and horizontal angles, and will be examined practically as to his knowledge of the adjustments and the use of the various screws; he must be able to read correctly on and off the arc, and must also be able to find the index error both by the horizon and by the sun.

Canada Shipping Act—continued

91. Rule of the Road.—In the examination on Rule of the Road the Examiner's duty will be to test the candidate's knowledge of the sense and intention of the Articles of the Collision Regulations. Mere ability to repeat the Articles word for word will not suffice to ensure the candidate's passing, nor will the lack of it necessarily entail failure provided the Examiner is satisfied that the candidate grasps the full significance, content, and practical application of the Articles. Examiners will ask for the content of the Articles not by their number, but by the subject with which they deal, and they will discourage the use by candidates of verses as aids to memorizing the Articles. Examiners will not place a candidate for a steamship certificate in the position of handling a sailing ship, but will lay stress on the candidate's ability to recognize a sailing ship's lights and on his knowledge of a sailing ship's possible manœuvres according to the direction of the wind.

92. Failure in the written or the oral part of the examination.—Candidates for any grade of certificate should proceed to the oral examination irrespective of whether they have passed or failed in their written work. If a candidate does not proceed to the oral examination at the time appointed by the Examiner, he will be regarded as having failed in the oral examination and also in the written examination, unless he produces a medical certificate or satisfactory evidence that it was impossible for him to attend the oral examination. The Examiner should make an entry in the form Exn. 14 accordingly.

Where a candidate passes in the written portion of the examination and fails in the oral or *vice versa*, the result of his examination will be stated on the form Exn. 17, and his pass in that portion in which he has satisfied the Examiners will hold good for a foreign-going certificate* for a period of six months from the date of the examination. If he does not pass the remainder of the examination within this period he will again be required to be examined both in the written and in the oral portions. The Minister may in exceptional circumstances decide to extend this period up to a limit of one year.

93. Penalties for failure.—Candidates failing in the oral portion of the examination through serious weakness in practical knowledge may, at the Examiner's discretion, be required to perform further sea service before being re-examined. Such sea service will not exceed six months, and may be performed in any capacity on deck in any foreign-going ship.

In the case of a second failure or any subsequent failure in the written or the oral portion of the examination, or in both, an interval of two months must elapse from the date of the last failure before a candidate can be re-examined. No further penalty will be imposed save in those cases where the examiner considers further sea service necessary.

When a candidate fails in the oral portion of the examination, the Examiner, in making his report on the form Exn. 14, should state whether any further sea service must be performed by the candidate and he should also insert this information in the form Exn. 2.

Inability to repeat verbatim the Articles of the Collision Regulations will not entail failure in the oral examination if the candidate understands the full significance, content and practical application of the Articles.

*A sectional pass obtained in the United Kingdom, or in any Dominion other than Canada or British Colony approved by the Ministry of War Transport of the United Kingdom, holds good in Canada, and similarly a sectional pass obtained in Canada holds good in the United Kingdom or any of the said Dominion or Colonies.

Canada Shipping Act—continued

94. Examination in signalling.—A candidate who is eligible for examination for any grade of certificate for which signalling is required may take this part of the examination at any time within the six months immediately before or after he presents himself for examination in the written and oral portions.

A candidate who fails in signalling but passes in every other subject may, at any time within the six months following his first attempt, be re-examined in signalling only, and, if he then passes, will receive his certificate of competency.

Subject to the above conditions, a candidate may be allowed to take the signalling examination in any week during which examinations of masters and mates are being held at the port, but the special fee for this examination (see para. 98) must be paid for each separate attempt.

95. Candidates failing may be examined for certificate of lower grade.—If a candidate fails in his examination for a foreign-going certificate, and he is eligible to be examined for a certificate of a lower grade, he may, if he so desires, be examined for the lower grade certificate without further formal application, but he will be required to complete the whole of the work prescribed for the lower grade.

No part, however, of the fee he has paid will be returned to him, and if the fee for the lower grade certificate is in excess of that already paid, the difference must also be paid. On presenting himself for re-examination for the higher grade certificate he will be required to pay a further full fee.

96. Procedure to be followed by the Examiner when a candidate is examined in one part of the examination only.—On every occasion when a candidate takes the signalling examination apart from the written and oral examination for a certificate of competency, a separate form Exn. 2 must be filled in. The result of the examination should be reported to the Deputy Minister on the form Exn. 14, the entry "Passed" or "Failed" being made in the appropriate column and the words "Not examined" or "Previously passed," as the case may be, entered in the columns headed "Written" and "Oral." The form Exn. 2 should be forwarded to the Deputy Minister and the result of the examination reported thereon.

A similar procedure should be followed when a candidate is re-examined in the written or oral portion of the examination only.

When a candidate presenting himself for examination for a certificate of competency claims to have passed part of the examination already, the Examiner should obtain the relative form Exn. 2 from the Deputy Minister.

In all cases when a candidate passes in the written, oral or signalling portion of the examination after previously passing in the other two portions, the Examiner, on being satisfied as to the facts, should report the result of the examination and issue his authority on the form Exn. 16 in the usual way.

97. Penalty for breach of rules.—Any candidate violating any of the regulations, or being guilty of insolence to the Examiner, or of disorderly or improper conduct in or about the room, will render himself liable to the postponement of his examination, or, if he has passed, to the detention of his certificate for such period as the Minister of Transport may direct.

Canada Shipping Act—continued

CHAPTER IV

FEES

98. *Table of fees.*—The fees are as follows:—

For a certificate of competency as Master	\$15 00
For a certificate of competency as First Mate.....	8 00
For a certificate of competency as Second Mate.....	8 00
For a certificate of service as Master	8 00
For a certificate of service as Mate	5 00
For a renewal certificate.....	1 00
For letter and Lantern Tests.....	1 00
For Signalling (when taken separately).....	2 00
For Voluntary Examination in Signalling	5 00
For Voluntary Examination in Compass Deviation.....	5 00

APPENDIX "A"

EXAMINATION IN SIGNALLING

The examination in Signalling, in all cases in which it is required for a certificate of competency, will consist of an examination in the International Code, the Allied Signal Manual, Morse Flashing, and Semaphore.

International Code.—Examiners are recommended to frame the examination in the International Code of Signals, upon the instructions and illustrations given at the commencement of Part I, Signal Book. The information there given will be found sufficient to indicate all the characteristics of the Code.

By the form of the hoist, an observer can at sight understand the nature of any signal he sees flying; the examination should, therefore, tend to elicit a clear knowledge of all the distinctive features of the Code.

The candidate should: (a) Be able to read a signal at sight, so far as to name the flags composing the hoist. (b) Know the use of the Code Pennant. (c) Be required to signal some word or words not included in the vocabulary of the Code. (d) Know the special Morse Signals indicated by certain letters, and the one flag signals, given on page 36, volume I of the Signal Book. (e) Have a good knowledge of the Distress Signals and understand the penalty which may be incurred by their improper use.

The International Code is used on board His Majesty's ships, and it has been adopted by all the principal Maritime Powers for their public as well as merchant ships.

Allied Signal Manual.—Candidates will be expected to know the meaning of any or all of the single flag signals given therein, and the signification of the Pilot Jack when incorporated in a hoist. They should also be required to make or read from the Pilot Jack table a hoist given by the Examiner. Candidates need not be expected to commit the Pilot Jack table to memory, but there should be no hesitation whatever in making or reading a signal. They should also know how to recognize any of the Special Signals given at the end of the Allied Signal Manual.

Canada Shipping Act—continued

Morse Flashing, Flag-waving and Semaphore.—Candidates for certificates will be required to attain a speed of 6 words a minute in Morse Flashing and 8 words a minute in Semaphore.

The Morse Flashing test will consist of a Test Card and a Spelling message of 10 words, and the Semaphore test of a Spelling message of 25 words.

Method of signalling.—The Semaphore messages may be made either by hand flags or mechanical Semaphore, or both, at the discretion of the Examiner.

The Spelling message is left to the discretion of the Examiner, and may be a passage from any book or newspaper in English. When the passage contains figures and the candidate does not choose to spell them out, the Examiner should see that the proper signs are made before and after the figures.

The message as read by the candidate should be taken down by another candidate where possible, otherwise by a clerk, or other person according as the Examiner may deem expedient.

Candidates should be thoroughly tested in the various signs and the procedure of calling up, sending and answering a signal, as laid down in the Allied Signal Manual, and this course should always be strictly adhered to.

Particular attention should be paid by Examiner to the accurate spacing of the Morse signs, and to the intervals between letters and words, and also to the correct making of the Semaphore signs. Any attempted increase of speed at the expense of accuracy should be discouraged.

Marks.—In the Morse Flashing examination marks will be allotted for the Test message in the proportion of 50/78 of a mark for each correct letter (see table at back of Test Cards), and for the Spelling message 2 marks for each correct word or group of figures. In the semaphore examination 2 marks will be allotted for each correct word.

Every candidate must, for a pass, gain an aggregate of at least 90 per cent of the maximum marks allotted both in making and reading in each method, *i.e.*, Morse Flashing and Semaphore.

Speeds and tests for voluntary examination.—Candidates for the voluntary examination in signalling will be required to attain a minimum speed of 12 words a minute in Semaphore, and 10 words a minute in Morse Flashing; the average length of a word is taken as 5 letters.

The Morse Flashing test will consist of a Test message (see Allied Signal Manual), followed by a Spelling message of 25 words, and the Semaphore test will consist of a Spelling message of 50 words.

In the examination in Morse Flashing the candidate should be first required to make a Test message, followed by a Spelling message of 25 words. The Examiner should then make a Test message followed by a Spelling message of 25 words to be read by the candidate.

The same procedure must be observed in the Semaphore test, except that, as a Test message is not given, the candidate should be required to make a Spelling message of 50 words, and then to read a message of 50 words made by the Examiner.

Canada Shipping Act—continued

APPENDIX B

SIGHT TESTS

DETAILS AS TO THE CONDUCT OF THE TESTS

These tests must be conducted under the strict personal supervision of the Examiner. A careful record must be kept of all mistakes made by the candidate both in the letter test and in the lantern test.

Each examiner must keep a record of all candidates passed by him for reference when required.

I. Letter Test

1. *Letter test to be passed first.*—The first test which the candidate is required to undergo is the letter test.

2. *Apparatus used.*—The letter test to be used for all candidates is that conducted on Snellen's principle by means of sheets of letters.

3. *Object of the test.*—The object of the letter test is to determine whether the candidate can reach a sufficient standard of visual acuteness, or, in other words, to find out whether his eyesight is good or bad.

4. *Standard of vision required.*—Every candidate for a first certificate of competency will be required to possess normal vision. With the exceptions indicated below (see paragraph 8), every candidate for a second or higher certificate will be required to possess normal vision.

"Normal vision" is defined, for the purpose of these regulations, as ability to read correctly nine of the twelve letters in the sixth line and eight of the fifteen letters in the seventh line of a test sheet placed in a good light at a distance of 16 feet from the eye.

The candidate will have the option of using either eye separately or both eyes together.

5. *Spectacles not allowed.*—During the examination for "letter test" candidates must not be allowed to use spectacles or glasses of any kind, or any other artificial aid to vision.

6. *Method of testing.*—The test sheets should be hung on the wall, in a good light but not in direct sunlight, at a height of five or six feet from the ground. The candidate should be placed at a distance of exactly 16 feet from the sheets, and exactly opposite them. This distance should be carefully measured, and should never in any circumstances be varied.

One of the sheets should then be exposed, and the candidate should be asked to read the letters on each sheet, beginning at the top and going downwards. Any mistakes which he makes should be carefully noted. If then it is found that he has read correctly at least nine letters in the sixth line and eight letters in the seventh line off a sheet, the candidate may be considered to have normal vision, and should be marked "passed" in the appropriate column of the form of application.

7. *Passing or failure.*—If at the conclusion of the test the candidate is found to reach the required standard, he may be considered to have passed, and the Examiner should proceed with the lantern test. If the candidate fails to reach the standard required for the certificate entered

Canada Shipping Act—continued

for, he should be tested with at least four sheets, and the Examiner should fill in the report form, and should forward it, with any remarks he may wish to make to the Supervising Examiner of the Division for his instructions as to whether the candidate is to be regarded as passing or as failing in the letter test.

8. *Lower standard required in certain cases.*—Candidates who are in possession of certificates obtained before January 1, 1914, may be regarded as passing the letter test if they can read correctly with both eyes at least five of the eight letters in the fifth line of a test sheet.

9. *Tests to be varied.*—The Examiner should take care, by varying the order of the test sheets and by every other means in his power, to guard against the possibility of any deception on the part of the candidate.

II. Lantern Test

10. *Apparatus.*—A special lantern and a mirror have been provided for this test. The lantern should be placed directly in front of the mirror, so that the front part of the lantern is exactly ten feet from the mirror. Care should be taken that the lantern is properly placed, that is to say, the lights reflected in the mirror must show clearly when viewed through the rectangular aperture on the left of the lantern. The Examiner should always satisfy himself that these conditions are fulfilled before commencing the examination.

11. *Darkness adaption.*—It is essential that a candidate should be kept in a room which is either completely or partially darkened for at least a quarter of an hour before he is required to undergo this test.

Before the examination commences the Examiner must satisfy himself that the room in which it is conducted is so darkened as to exclude all daylight.

12. *Method of testing.*—The lantern supplied for the examination is so constructed as to allow one large or two small lights to be visible, and is fitted with twelve glasses of three colours—red, white and green. At the commencement of the examination the Examiner should show to the candidate a series of lights through the large aperture, and should require him to name the colours as they appear to him. Care should be taken in showing the white light to emphasize the fact that the light is not a pure white. If a candidate makes a mistake of calling this light “red”, a proper red light should be shown immediately after and the candidate’s attention directed to the difference between the two.

After a series of lights through the large aperture has been shown, the Examiner should make a complete circuit with the two small apertures, requiring the candidate to name the colours of each set of two lights from left to right. To prevent any possibility of the order in which the lights are arranged from being learned, the Examiner should at least twice in each circuit go back a varying number of colours.

A record of any mistakes made with either the large aperture or the two smaller apertures should be carefully kept by the Examiner.

13. *Passing or failure.*—If a candidate with either the large aperture or the two smaller apertures of the lantern mistakes red for green or green for red, he should be considered to have “failed” in the Lantern Test.

Canada Shipping Act—continued

If the only mistake made by the candidate with the lantern is to call the white light "red", and if after his attention has been specially directed to the difference between the two he makes no further mistake of this nature, he should be considered to have passed in the Lantern Test.

If a candidate makes any other mistake with the lantern, i.e., if he calls white "red" repeatedly or red "white" at all, or confuses green and white, his case should be reported to the Supervising Examiner of Masters and Mates of the Division and he should be told that the decision as to whether he is passed or failed, will be communicated to him in due course. Pending the receipt of the Supervising Examiner's instructions such a candidate should only be allowed to proceed with the remainder of the examination for a certificate of competency on the express understanding that the latter examination will be cancelled in the event of failure in the Sight Tests.

If, however, the Supervising Examiner decides that the nature of the mistakes made shows conclusively that a candidate's sight is so defective as to render him unfit to hold a certificate, the candidate should be considered to have failed.

14. In cases where, upon the report of the local Examiner, a candidate is failed by the Supervising Examiner, as well as in the case covered by paragraph 13, the Minister may allow a candidate who is dissatisfied with this decision a special examination.

III. Reports

15. The result of every examination in letter test or lantern test must be reported to the Deputy Minister of Transport.

Every report relating to such an examination must be signed by the Examiner who conducted the examination.

APPENDIX C

Sea Service required to qualify for examination for Certificates of Competency.—The following is a condensed statement of the sea service required to qualify in each of the various grades of certificates of competency. Where service as an officer is required it is shown in tabular form. The letters F.G. are used as denoting foreign-going and H.T. as denoting home-trade voyages.

A candidate for sailing ship endorsement must show that at least 12 months of his service has been spent in square rigged sailing ships.

CERTIFICATES FOR FOREIGN-GOING SHIPS

Second Mate (Foreign-going)

Minimum age, 20 years.

Minimum sea service, 4 F.G. or 6 H.T.

No officer's service required.

Canada Shipping Act—continued

First Mate (Foreign-going)

Minimum age, $21\frac{1}{2}$ years.

Minimum sea service, $5\frac{1}{2}$ F.G. or $8\frac{1}{4}$ H.T.

Officer's service as follows:—

Years	Lowest Capacity	Lowest certificate required
$1\frac{1}{2}$ F.G.....	Third of 3 watchkeeping officers..... Or	2nd Mate F.G.
$2\frac{1}{4}$ H.T.....	First Mate.....	2nd Mate F.G.

Master (Foreign-going)

Minimum age, 23 years.

Minimum sea service, 7 F.G. or $10\frac{1}{2}$ H.T.

Officer's service as follows:—

Years	Lowest Capacity	Lowest certificate required
$1\frac{1}{2}$ F.G.....	First Mate..... Or	1st Mate F.G.
$2\frac{1}{4}$ H.T.....	First Mate..... Or	1st Mate F.G.
2 F.G.....	Second of 3 watchkeeping officers..... Or	1st Mate F.G.
$2\frac{1}{2}$ F.G.....	Third of 3 watchkeeping officers..... Or	1st Mate F.G.
3 H.T.....	Master.....	2nd Mate F.G. or Master H.T. for one year of such service.

Canada Shipping Act—*continued*

APPENDIX D

CERTIFICATE OF WATCHKEEPING SERVICE

FOR A FIRST MATE'S OR MASTER'S CERTIFICATE

THIS IS TO CERTIFY THAT Mr..... has served
on the S.S.....from.....to.....
in the capacity of *(1st) (2nd) (3rd) Watchkeeping Officer.

During this time Mr.....was an
Officer in *(full) (effective) charge of a watch for eight hours out of every
twenty-four hours at sea, except as stated below.

Watches were not doubled at any time during the voyage.†

Watches were doubled between the following dates and at no other
times.....During this time
*(senior)

Mr.....served as the (junior)
of two Bridge-keeping Officers.‡
an entry to this effect has been made in the mate's log.

Signature of Master.....

*—Obliterate the words that do not apply.

†—Delete this paragraph if watches were doubled at any time during the voyage.

‡—Delete this paragraph if watches were not doubled at any time during the voyage.

Canada Shipping Act—continued

24. Radio Regulations for Ship Stations, Part I

P.C. 1807

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 22nd day of April, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Reconstruction and Supply and pursuant to the provisions of the Canada Shipping Act, 1934, is pleased to order as follows:

1. The Radio Regulations for Ship Stations, Part I, established by Order in Council P.C. 2998 of November 29, 1938, as amended, are hereby revoked; and

2. The attached "Radio Regulations for Ship Stations, Part I," are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

RADIO REGULATIONS FOR SHIP STATIONS

PART I

By the Governor in Council in accordance with sections 406, 408, 448 and 449 of the Canada Shipping Act, 1934

INTERPRETATION

1. In the following Regulations, unless the context requires a different meaning,—

(1) "Minister" means the Minister of Transport, or his Deputy, or Acting Deputy, or any Minister acting for, or in the place of, the Minister of Transport.

(2) "radio" means radiotelegraph, radiotelephone and any other form of radioelectric communication, and includes the wireless transmission of writing, signs, signals, pictures and sounds of all kinds by means of Hertzian waves.

FEES FOR LICENCES

2. The annual fees to be paid in respect of licences issued by the Minister for the installation and operation of radio stations on board ships registered in Canada shall be as follows:—

- | | |
|--|---------|
| (1) <i>Ship Station Licence (A)</i> | |
| (for ships fitted with transmitting and receiving apparatus) | \$10.00 |
| (2) <i>Ship Station Licence (B)</i> | |
| (for ships fitted only with receiving apparatus for navigational purposes) | 2.00 |

Canada Shipping Act—continued**DISTRESS SIGNALS**

3. (1) The provisions of the International Telecommunications Convention for the time being in force and of the General Regulations annexed thereto, so far as they apply to ship stations, and of the International Convention for the Safety of Life at Sea where applicable, shall be observed by ship stations on board ships registered in Canada. The alarm, distress, urgency and other signals and their use shall be as prescribed by the said Conventions and Regulations.

(2) The alarm signal and the distress signal shall only be used by ships in serious and imminent danger which require immediate assistance. In all other cases in which assistance is required, or in which a vessel desires to issue a warning that it may become necessary to send out the alarm signal or distress signal at a later stage, use must be made of the international urgency signal.

(3) If a ship has sent out the alarm or distress signal and subsequently finds that assistance is no longer required, such ship shall immediately notify all stations concerned.

(4) The use of the international distress signal except for the purpose of indicating that a vessel is in distress, or the use of any signal which might be confused with the international distress signal, is prohibited.

DANGER MESSAGES

4. Information concerning dangerous ice, dangerous derelicts, tropical storms, or any other direct dangers to navigation, shall be sent under the "General call to all ship stations" and shall be transmitted to the nearest coast radio station with which communication can be established, with the request that it be transmitted to the appropriate authority.

CONTROL OF SHIP STATIONS

5. (1) If, and whenever, in the opinion of the Minister, an emergency shall have arisen or is apprehended in which it is expedient for the public service that His Majesty shall have control over the transmission of messages by the apparatus of a radiotelegraph station on board any vessel registered in Canada, it shall be lawful for the Minister, by warrant under his hand, to direct and cause the apparatus, or any part thereof, on any such vessel to be taken possession of in the name and on behalf of His Majesty, and to be used for His Majesty's service, and, subject thereto, for such ordinary services as to the Minister may seem fit, and, in that event, any person authorized by the Minister may enter upon any ship station and take possession thereof and use the same as aforesaid.

(2) When the Minister considers such an emergency as aforesaid to have arisen, he may, instead of taking possession of such ship station, direct and authorize such persons as he may think fit to assume control of the transmission of messages by the apparatus of such station, either wholly or partly, and in such manner as he may direct, and such persons may enter upon the station premises accordingly or the said Minister may direct the owner or his representative to submit to him or any person authorized by him all messages tendered for transmission or arriving by the apparatus or any class or classes of such messages, to stop or delay the transmission of any messages or deliver the same to him or his agent, and generally to obey all such directions with reference to the transmission of messages as the said Minister may prescribe, and the owner or his representative shall obey and conform to all such directions.

Canada Shipping Act—continued

(3) During such an emergency, the use of radiotelegraphy or radiotelephony on all ship stations, whether British or foreign (and if British whether registered in Canada or elsewhere) whilst within the harbours or territorial waters of Canada, shall be subject to such rules as may be made by the Minister from time to time, and such rules may prohibit or regulate such use in all cases.

SHIPS EXEMPT FROM CARRYING A RADIOTELEGRAPH INSTALLATION

6. In accordance with the provisions of sections 406 (1) (b) and 408 (c) of the Canada Shipping Act, 1934, the following classes of ships registered in Canada, *plying on international voyages*, are hereby exempt from the requirement of being fitted with a radiotelegraph installation:—

(1) *Passenger ships* certified to carry or carrying less than fifty persons, including passengers and crew, provided such ships do not in the course of any such voyage, go more than—

- (i) 20 miles from the nearest land, or
- (ii) 200 miles in the open sea between two consecutive ports.

(2) *Cargo Ships*.

- (a) Of less than 1,600 tons.
- (b) Of less than 5,000 tons gross tonnage which in the course of any such voyage do not go more than 150 miles from the nearest land.
- (c) Barges in tow and existing sailing ships. For the purpose of this regulation, an existing sailing ship shall be considered as one of which the keel was laid before the 1st of July, 1931.
- (d) Ships of primitive build such as dhows, junks, etc., if it is practically impossible to fit them with a radiotelegraph installation.
- (e) Ships which are not normally engaged on international voyages, but which in exceptional circumstances are required to undertake a single voyage of that kind.

6A. Cargo ships registered in Canada of 5,000 tons gross tonnage and upwards going on any voyage on the Great Lakes which is or which includes a voyage of more than 200 nautical miles from one place to another place are exempted from the requirement of being fitted with a radiotelegraph installation, provided that such ships are equipped with a radiotelephone installation of a type approved by the Minister of Transport.

PENALTIES

- 7. (a) Any person who violates any of the provisions of these Regulations shall be liable, on summary conviction, to a penalty not exceeding fifty dollars (\$50.00) and costs or three months' imprisonment.
- (b) Any person who violates any of the provisions of the Regulations heretofore or hereafter made by the Minister under section 409 of the Canada Shipping Act, 1934, shall be liable on summary conviction to a fine not exceeding fifty dollars (\$50.00) and costs.

Canada Shipping Act—continued**25. Radio Regulations for Ship Stations, Part II**

Made by the Minister of Transport under the authority of section 409 of the Canada Shipping Act, 1934.

LICENCES

1. The Minister may grant licences for ship stations on board ships registered in Canada to the registered owners of such ships or to companies incorporated under the laws of the Dominion of Canada or any of the Provinces thereof on behalf of such owners.

2. There shall be two classes of Ship Station Licences—

- (a) Ship Station Licence (A)—for ship stations fitted with transmitting and receiving apparatus.
- (b) Ship Station Licence (B)—for ship stations fitted only with receiving apparatus for navigational purposes.

3. (1) Ship Station Licences (A) shall authorize two-way communication with other stations in the Maritime Mobile Service. Ship Station Licences (B) shall authorize the reception of signals from other stations in the Maritime Mobile Service for the purpose of taking bearings or fixing a position, or the reception of weather and other aid to navigation reports. Ship Station Licences shall not authorize reception of music and entertainment from broadcasting stations. Radio receiving sets carried by ships, registered in Canada, for purposes of such broadcast reception shall come within the category of "private receiving station" and as such shall be subject to the regulations which apply to that class of station.

(2) Applications for Ship Station Licences shall include particulars of radio equipped lifeboats and the Licence when issued may authorize the installation and operation of such equipment for testing or emergency purposes.

(3) In special cases the Minister may grant authority for a ship station on board a yacht, or on board a vessel undertaking a scientific expedition to communicate with amateur stations on condition that—

- (a) (i) the circumstances of the voyage or voyages contemplated are such that it would be difficult or impossible for the ship station to communicate directly with stations in the Maritime Mobile Service;
- (ii) it is shown that unusual circumstances would make it extremely beneficial for the ship station to communicate with amateur stations rather than with the regular stations of the Maritime Mobile Service.
- (b) the messages to be exchanged with amateur stations will contain nothing of a commercial nature.

4. Licences for ship stations shall be valid for a period of one year commencing on April 1 and expiring on the following March 31, and shall be subject to such conditions as may be specified by the Minister from time to time.

5. The Minister may require as a condition to the issue of any Ship Station Licence (A) that the licensee shall pay to the Minister, and maintain throughout the period during which the licence is in force, a deposit of fifty dollars (\$50) as security for the payment of coast station and landline delivery charges in respect of radiotelegrams originating on

Canada Shipping Act—continued

board any vessel and transmitted *via* any coast station, domestic or foreign. This deposit may be appropriated by direction of the Minister for payment of any such charges which are not otherwise paid in due course. The amount to the credit of the licensee will be returned at the expiry of a period of not more than nine months from the termination of the licence, subject to such deductions as shall have been made for any of the charges aforesaid.

6. No new installation of transmitting apparatus employing damped wave emissions shall be authorized except for distress purposes.

FREQUENCIES

7. (1) The international calling and distress frequency for all ship stations shall be 500 kilocycles.

(2) The calling and safety frequency for all radiotelephone equipped ship stations on the Great Lakes shall be 2182 kilocycles.

(3) Other frequencies authorized for use in handling traffic or for other purposes shall be as designated in the Ship Station Licence.

(4) The frequency of 375 kilocycles shall be used by ship stations solely for direction finding purposes.

(5) Ship stations using frequencies for transmission in the band from 100 to 160 Kc/s and above 4000 Kc/s shall, unless the transmitters employing these frequencies are equipped with an approved frequency stabilizing system, be provided with a wavemeter having an accuracy at least equal to 5/1000 or with an approved equivalent device.

8. Except in case of distress, all ship stations shall use the minimum amount of power necessary to carry out any communication desired.

LOG

9. (1) A log (*proces verbal*) shall be maintained in all ship stations In it shall be inserted:

(a) The names of the operators on watch.

(b) Particulars pertaining to the handling of regular traffic.

(c) All incidents and occurrences connected with the radio service which appear to be of importance to the safety of life at sea. And in particular—

(d) All distress messages and distress traffic in full.

(2) An entry shall be made at least every fifteen minutes during the periods an operator is on watch.

DOCUMENTS

10. Ship stations shall carry the documents as prescribed in Appendix 6 annexed hereto.

CLASSIFICATION OF SHIP STATIONS

11. (1) Ship stations shall, for the purpose of handling public correspondence in accordance with the requirement of the regulations of the Telecommunication Convention, be divided into three categories, as follows:—

(a) *First Category*—Stations whose duration of service by operator is continuous while the ships are being navigated.

Canada Shipping Act—continued

- (b) *Second Category*—Stations carrying on a designated service of limited duration by operator.
- (c) *Third Category*—Stations whose duration of service by operator is less than that specified for a station of the Second Category and a station whose duration of service by operator is undetermined.

(2) The classification of a ship station will be indicated in the licence issued to the station. The operators to be carried and the watches to be maintained shall be in accordance with such classification as set down in sections 25 and 27 of these Regulations.

RADIOTELEGRAPH INSTALLATION TO BE FITTED

12. A radiotelegraph installation complying with sections 13 to 23 of these Regulations shall be fitted in every ship required by section 406 of the Canada Shipping Act, 1934, and the Regulations issued under the said Act, to carry a radiotelegraph installation except in cases where exemptions made under the provisions of that Act or the Regulations made thereunder apply.

MAIN EQUIPMENT

13. (1) The main transmitter shall—

- (a) Have a normal range of 100 nautical miles, that is to say, it must be capable of transmitting clearly perceptible signals from ship to ship over a range of at least 100 nautical miles by day, under normal conditions and circumstances, the receiver being assumed to be one employing a rectifier of the crystal type without amplification.
- (b) Be capable of transmitting on the distress frequency of 500 Kc/s, the direction finding frequency of 375 Kc/s, Type A2 and at least one other frequency, Type A2 in the authorized bands between 365 and 485 Kc/s.
- (c) Have a note frequency of at least 100.

(2) Sufficient power must be available in a ship station at all times to operate the transmitter of the main equipment efficiently, under normal conditions, over the normal range.

(3) The main receiver shall be capable of—

- (a) Efficiently receiving on all frequencies between 515 Kc/s and 100 Kc/s, Type A1, A2 and B waves.
- (b) Maintaining reception by means of a rectifier of the crystal type.

EMERGENCY EQUIPMENT

14. (1) Emergency transmitter shall—

- (a) Have a normal range of at least 80 miles for ships required to maintain a continuous watch and at least 50 miles for all other ships; that is to say, the emergency transmitter must be capable of transmitting clearly perceptible signals from ship to ship over a range of at least 80 and 50 miles, respectively, according to the class of ship, by day under normal conditions and circumstances, the receiver being assumed to be one employing a rectifier of the crystal type without amplification.

Canada Shipping Act—continued

- (b) Be capable of transmitting on the frequency of 500 Kc/s, Type A2 or B.
- (c) Have a note frequency of at least 100.
- (2) The emergency equipment shall—
 - (a) Be provided with a source of energy independent of the propelling power of the ship and of the ship's electrical system.
 - (b) Be capable of being put into operation rapidly and of working for at least six continuous hours.
- (3) The emergency source of power shall be maintained at its full efficiency whilst the ship is at sea. A statement that this requirement has been met shall be inserted in the ship's official log daily.
- (4) All parts of the emergency equipment shall be placed in the upper part of the ship, in a position of the greatest possible safety, and as high above the deepest load water line as practicable.
- (5) If the main equipment complies with all the requirements of an emergency equipment, the latter is not then obligatory.

EMERGENCY EQUIPMENT IN LIFEBOATS

15. (1) Where a ship carries motor lifeboats in compliance with Regulation XXXVI, paragraph 2, Annex 1, to the Safety of Life at Sea Convention, 1929, being the Fourth Schedule to the Canada Shipping Act, 1934, each of such motor lifeboats shall be fitted with a radiotelegraph installation.

- (2) This radiotelegraph installation shall—
 - (a) Be capable of transmission and reception on a frequency of 500 Kc/s.
 - (b) Be provided with a source of power—
 - (i) sufficient to give a minimum of 10-metre-amperes, and*
 - (ii) to maintain the installation in operation for a period of 6 running hours.

(Regulation XXXVI, paragraph 2, Annex 1, to the Safety of Life at Sea Convention, 1929, above referred to, prescribes as follows:—"Where the number of lifeboats carried on a ship is more than 13, one shall be a motor boat, and where the number is more than 19, two shall be motor boats.")

DIRECTION FINDING APPARATUS

16. (1) Every passenger ship of 5,000 tons gross tonnage and upwards shall be fitted with an approved direction finding apparatus (radio compass), which shall be capable of—

- (a) Receiving clearly perceptible signals on the frequency of 285 to 320, 365 to 385 and 500 Kc/s.
- (b) Taking bearings from which the true bearing and direction may be determined.

(2) Efficient communication shall be provided between the direction finding apparatus and the bridge.

*The number of metre-amperes is determined by multiplying the current in amperes measured at the base of the aerial by the maximum height in metres of the aerial above the water line.

Canada Shipping Act—continued**AUTOMATIC ALARM**

17. (1) In ships in which watch is kept by means of an automatic alarm receiver—

- (a) A means of giving audible warning shall be provided—
 - (i) in the radio room,
 - (ii) in the radio operator's cabin, and
 - (iii) on the bridge.
- (b) The audible warning shall continue after the receiver has been operated by the alarm signal or distress call until stopped.
- (c) Only one switch for stopping the warning shall be provided, and this shall be situated in the radio room.
- (d) The operator when going off watch shall—
 - (i) connect the automatic alarm receiver to the aerial and test its efficiency,
 - (ii) report to the master or the officer on watch on the bridge whether it is in working order.
- (2) The automatic alarm receiver shall—
- (a) Be tested at least once every twenty-four hours while the ship is at sea, and a statement that this requirement has been met shall be inserted in the ship's official log daily.
- (b) Comply with the requirements set down in Appendix 1 annexed hereto.

LOCATION OF SHIP'S RADIO STATION

18. The ship's radio station shall be placed in the upper part of the ship in a position of the greatest possible safety, as high as practicable above the deepest load line.

COMMUNICATION WITH THE BRIDGE

19. Means of communication shall be provided between the bridge of the ship and the radio room either by telephone or by voice pipe, or in some other approved manner.

CLOCK

20. A reliable clock with seconds hand, preferably a centre seconds hand, shall be provided in all ships stations. Such steps as may be necessary shall be taken to keep it correctly regulated to the time authorized in the station.

EMERGENCY LIGHT

21. A reliable emergency light shall be provided in the radio room.

STORAGE BATTERIES

22. Storage batteries used in ship stations shall be provided with adequate ventilation to the outer air in such a manner as to obviate the possibility of the discharge of fumes which might be detrimental to the health of the operator.

SPARE PARTS

23. Every ship station shall carry a reasonable number of spares of such parts of the radiotelegraph installation as are subject to undue wear, deterioration or liability to breakdown.

Canada Shipping Act—continued

OPERATORS TO BE CARRIED

24. Ships compulsorily fitted with a radiotelegraph installation under the provisions of section 406 of the Canada Shipping Act, 1934, shall, for safety purposes, carry a minimum number of operators holding a First or Second Class Certificate as follows:—

(1) Ships plying on waters other than the lakes, rivers, or along the coasts of Canada *not fitted* with an automatic alarm.

(a) (i) *Passenger ships under 3,000 tons gross tonnage*—one operator.

(ii) *Passenger ships 3,000 tons gross tonnage and upwards*—If the hours during which the ships are being navigated do not exceed 8 hours per day—one operator; if the hours exceed 8 hours per day—two operators.

(b) (i) *Cargo ships 5,500 tons gross tonnage and under*—one operator.

(ii) *Cargo ships over 5,500 tons gross tonnage*—If the hours during which the ships are being navigated do not exceed 8 hours per day—one operator; if the hours exceed 8 hours per day—two operators.

(2) Ships plying on waters other than the lakes, rivers, or along the coasts of Canada *fitted* with an automatic alarm, whether passenger or cargo, and irrespective of size—one operator.

(3) Ships plying on the lakes, rivers, or along the coasts of Canada, whether passenger or cargo, and irrespective of size—one operator.

25. Ship stations classified for purposes of handling public correspondence according to section 11 of these Regulations shall maintain minimum number of operators as follows:—

First Category Ship Station—Two operators, the operator in charge to be the holder of a First Class Certificate, and the second operator a First or Second Class Certificate.

Second Category Ship Station—One operator holding a First or Second Class Certificate.

Third Category Ship Station—One operator holding a First or Second Class Certificate.

26. In cases where the requirements in Regulation 24, specifying the minimum number of operators to be carried for safety purposes, and Regulation 25, specifying the operators to be carried on ship stations handling public correspondence, do not coincide, the Regulation requiring the greater number of operators shall apply.

WATCHES TO BE MAINTAINED

27. Ships compulsorily fitted with a radiotelegraph installation under the provisions of section 406 of the Canada Shipping Act, 1934, and the Regulations issued thereunder, shall maintain watches by operator as follows:—

(1) Ships plying on waters other than the lakes, rivers, or along the coasts of Canada *not fitted* with an automatic alarm.

(a) (i) *Passenger ships under 3,000 tons gross tonnage*—If the hours during which the ships are being navigated do not exceed 8 hours per day—a continuous watch shall be maintained.

If the hours exceed 8—eight hours watch per day shall be maintained during the periods specified in Appendix 2.

Canada Shipping Act—continued

- (ii) *Passenger ships, 3,000 tons gross tonnage and upwards—continuous watch.*
- (b) (i) *Cargo ships 5,500 tons gross tonnage and under—If the hours during which the ships are being navigated do not exceed 8 hours per day—a continuous watch shall be maintained.*
If the hours exceed 8—eight hours watch per day shall be maintained during the periods specified in Appendix 2.
- (ii) *Cargo ships over 5,500 tons gross tonnage—continuous watch.*
- (2) Ships plying on waters other than the lakes, rivers, or along the coasts of Canada fitted with an automatic alarm shall keep watch by operator during the periods specified in Appendix 2.
- (3) Ships plying on the lakes, rivers, or along the coasts of Canada, whether fitted with an automatic alarm or not, shall maintain watches by operator as follows:—
 - (a) *West Coast of Canada—As specified in Appendix 4.*
 - (b) *East Coast of Canada—As specified in Appendix 5.*
 - (c) *Great Lakes—As specified in Appendix 3.*

The automatic alarm on ships so fitted shall at all times be in effective operation when the operator is not on watch. In case of failure of the automatic alarm, and if the same is not repaired or replaced before the ship leaves the next port of call, an additional operator shall be assigned if the ship falls within a class for which two operators are prescribed.

28. Ship stations classified for purposes of handling public correspondence according to section 11 of these Regulations shall maintain watches as follows:—

First Category Ship Station—Continuous watch by operator whilst the ship is being navigated.

Second Category Ship Station—Eight hours per day by operator during the hours specified in Appendix 2.

Third Category Ship Station—No fixed hours. Nevertheless, the operator shall copy the aids to navigation transmitted at advertised hours by the nearest coast station within range and, in order to avoid unnecessary calling by coast stations for the purpose of transmitting messages addressed to ships in this category, the operator shall establish communication with the nearest coast station and indicate the times he will be on watch.

29. In cases where the requirements in Regulation 27 (1) and (2), specifying the minimum watches to be maintained for safety purposes, and Regulation 28, specifying the watches to be maintained by ship stations handling public correspondence, do not coincide, the Regulation requiring the maximum watches shall apply.

30. The Minister may authorize ship stations on vessels plying regularly on the lakes, rivers, or along the coasts of Canada, to keep special watches in lieu of those prescribed in Appendices 3, 4 and 5. Such special watches shall be authorized by the Minister in writing and shall be attached as a schedule to the licence of the ship station concerned.

OPERATOR'S CERTIFICATES

31. Ship stations on vessels registered in Canada shall be worked only by persons holding Canadian Certificates of Proficiency in Radio issued by the Minister of Transport under the provisions of The Radio Act, 1938,

Canada Shipping Act—continued

and Regulations annexed thereto. Nevertheless, the holders of Certificates of Proficiency in Radio issued in accordance with the provisions of the Telecommunication Convention, by His Majesty's Postmaster General of Great Britain, the Administration of any British self-governed dominion or colony, or the Government of India, subject to the provisions of these Regulations may be entitled to act as operator on any ship registered in Canada, so long as operators holding Canadian Certificates are accorded similar privileges in respect of ship stations belonging to such Administrations.

32. The holders of Canadian Certificates of Proficiency in Radio shall be qualified to act as operators on Canadian ship stations as follows:

(a) *First Class Radiotelegraph Operator's Certificate*—as radiotelegraph or radiotelephone operator in any ship station, or in charge of a ship station of any category.

(b) *Second Class Radiotelegraph Operator's Certificate*—as radiotelegraph operator in a ship station of any category, or in charge of a ship station of the second category.

(c) *Second Class Radiotelegraph Operator's Certificate, Temporary*—as radiotelegraph operator in a ship station of any category, or in charge of a ship station of the third category.

(d) *Radiotelegraph Watcher's Certificate*—as a receiving (listening only) operator on a ship station carrying at least one operator holding a First or Second Class Radiotelegraph Operator's Certificate.

(e) *Radiotelephone Operator's General Certificate*—as radiotelephone operator, or in charge of a ship station carrying only radiotelephone equipment.

(f) *Radiotelephone Operator's Restricted Certificate*—as radiotelephone operator, or in charge of a radiotelephone station having a power not exceeding 50 watts.

(g) *Emergency Certificate*—as operator, or in charge of a ship station according to the class for which it is endorsed.

TIME

33. (1) Ship stations on vessels plying on trans-oceanic voyages shall observe Greenwich Mean Time and shall use the twenty-four hour system. The time shall always be expressed and transmitted by means of four figures (0001 to 2400).

(2) Ship stations on vessels plying regularly along the West Coast of North America shall observe Pacific Standard Time and those on the Great Lakes and the East Coast of North America, Eastern Standard Time. In such cases the time shall be denoted by a group of four figures followed by the letter "F".

OPERATOR OF SHIP STATIONS WITHIN THE TERRITORIAL WATERS OR HARBOURS OF CANADA

34. *Ship Stations in Territorial Waters.*—The Radiotelegraph Stations on board ships (other than H.M. ships of war or Canadian Government vessels) shall not be worked while such ships are within the territorial waters of Canada, unless specific permission is granted therefor by the controlling Canadian coast station for the locality, and then only provided

Canada Shipping Act—continued

such working does not interfere with the operation of any coast station established in Canada, and that the provisions of the International Telecommunication Convention for the time being in force, and the Radio Communication Regulations, annexed thereto, are strictly observed.

35. Ship Stations in Harbours—(a) The Radiotelegraph Stations on board ships (other than H.M. ships of war or Canadian Government vessels) shall not be worked whilst such ships are within a harbour of the Dominion of Canada, except as follows:—

- (i) When direct communication by messenger, visual signals or other method between ship and shore is impracticable and then only for the purpose of exchanging with the nearest coast station messages relating exclusively to the business of the ship.
- (ii) For the purpose of making or answering signals of distress.

(b) For the proper enforcement of the above, ships in Canadian harbours shall, if so instructed by a Canadian Government Radio Inspector, or other properly authorized officer, completely disconnect the aerial wires from their radio apparatus, the end of such wires being suspended entirely clear of the radiotelegraph cabin, in such a manner as to show they are properly disconnected.

(c) I. Foreign Men of War and service aircraft accompanying them, lying in a naval port, or in any harbour which is close to a naval port shall obtain permission from the Senior Naval Officer at the Naval Port to use their radiotelegraph apparatus, stating system and times of transmission proposed.

II. Foreign Men of War and service aircraft accompanying them, lying in any harbour which is not close to a Naval Port shall obtain permission from the permanent Radio Inspector at that port to use their radiotelegraph apparatus; and at ports where there is no permanent Radio Inspector, they shall conform to the following regulations:—

(1) Transmission is forbidden, except for the purpose of making or answering signals of distress.

(2) Interference with Naval, Army or Air Force Signalling, or any land or coast station, must be avoided.

(3) Transmission must be discontinued on request from (a) any Naval Authority, (b) the port authorities, (c) any land or coast station.

(4) Protracted signalling using apparatus transmitting other than pure continuous waves must be avoided.

(5) If there is a British or Dominion Fleet or Warship lying in the harbour, the Senior Naval Officer should be consulted.

PROFANE LANGUAGE

36. No person shall transmit or make a signal containing profane words or language.

INSPECTION OF STATIONS

37. Any duly authorized officer of the Department may, from time to time, and at all reasonable times, enter upon any ship station, within the jurisdiction of Canada, for the purpose of inspection, and may inspect any apparatus fixed or in use in such station, and all books and papers used in connection with the operation of such station. His authority will be in the form of a card or letter signed by the Minister.

Canada Shipping Act—continued

CERTIFICATE OF INSPECTION

38. (1) The radiotelegraph installation on all ships registered in Canada not engaged on international voyages, shall be subject to inspection from time to time by an officer of the Department of Transport, who, if the apparatus is found to comply with the provisions of the Canada Shipping Act, 1934, and the Regulations issued thereunder, shall issue to the ship station a "Radio Inspection Certificate" certifying that the equipment has been duly inspected and that it complies with the provisions of the licence issued therefor by the Minister of Transport. This Certificate will be valid for a period of one year from the date of issuance, and shall be posted in the Radio Room.

(2) Ships on international voyages shall be inspected and issued Certificates as provided for in sections 415, 416 and 418 of the Canada Shipping Act, 1934.

MASTER'S RESPONSIBILITY

39. The Master of every ship required by section 406 of the Canada Shipping Act, 1934, to be fitted with a radiotelegraph installation, shall take all necessary steps to ensure that the radiotelegraph service of the ship is maintained in accordance with these Regulations and with the conditions of the licence granted by the Minister of Transport under the Canada Shipping Act, 1934.

LIONEL CHEVRIER,
Minister of Transport.

5th October, 1949.

APPENDIX 1

THE AUTOMATIC ALARM SIGNAL AND THE TECHNICAL REQUIREMENTS WITH WHICH THE AUTOMATIC ALARM RECEIVER MUST COMPLY

(1) The alarm signal is composed of a series of twelve dashes transmitted in one minute, the duration of each dash being four seconds, and the duration of the interval between two dashes, one second. It may be sent by hand or by an automatic apparatus.

(2) This special signal has for its sole purpose the actuation of the automatic devices giving the alarm. It must be used solely either to announce that a distress call or message is about to follow or to announce the emission of an urgent cyclone warning; in the latter case it may be used only by coast stations duly authorized by their Government.

(3) In cases of distress, the distress call when sent by radiotelegraph on 500 Kc/s is, as a general rule, immediately preceded by the alarm signal. When circumstances permit, the transmission of the call is separated from the end of the alarm signal by an interval of two minutes silence; in the case of urgent cyclone warnings, the emission of the warning must not begin until two minutes after the termination of the alarm signal.

(4) Automatic devices intended for the reception of the alarm signal must fulfil the following conditions:—

- (i) Respond to the alarm signal even when many stations are working and when there is atmospheric interference;
- (ii) Not to be actuated by "atmospherics" or by strong signals other than the alarm signal.
- (iii) Possess a sensitiveness equal to that of a receiver with crystal detector connected with the same aerial;

Canada Shipping Act—continued

(iv) Give warning when their operation ceases to be normal.

(5) All automatic alarm receivers fitted in ships registered in Canada must be of a standard commercial type approved by the Minister of Transport.

APPENDIX 2

Periods of watch to be maintained by operator in certain ships plying on the sea as follows:—

- (1) Passenger and cargo ships compulsorily fitted with a radio-telegraph installation, and
- (2) Passenger and cargo ships whose stations are in the Second Category.

(See Regulations 27 to 30)

Zones	Western Limit	Eastern Limit	Periods of Watch Greenwich Mean Time
A.—Eastern Atlantic Ocean, Mediterranean, North Sea, Baltic.	Meridian of 30°W., Coast of Greenland.	Meridian of 30° E., to the South of the Coast of Africa, Eastern Limits of the Mediterranean, of the Black Sea and of the Baltic, 30° E., to the North of Norway.	From To 8h. to 10h. 12h. to 14h. 16h. to 18h. 20h. to 22h.
B. — Western Indian Ocean, Eastern Arctic Sea.	Eastern Limit of Zone A.	Meridian of 80°E., Western Coast of Ceylon to Adam's Bridge, thence Westward round the coast of India.	From To 4h. to 6h. 8h. to 10h. 12h. to 14h. 16h. to 18h.
C. — Eastern Indian Ocean, China Sea, Western Pacific Ocean.	Eastern Limit of Zone B.	Meridian of 160°E.	From To 0h. to 2h. 4h. to 6h. 8h. to 10h. 12h. to 14h.
D. — Central Pacific Ocean.	Eastern Limit of Zone C.	Meridian of 140°W.	From To 0h. to 2h. 4h. to 6h. 8h. to 10h. 20h. to 22h.
E. — Eastern Pacific Ocean.	Eastern Limit of Zone D.	Meridian of 90°W., as far as the Coast of Central America, then the West Coast of Central America and North America.	From To 0h. to 2h. 4h. to 6h. 16h. to 18h. 20h. to 22h.
F. — Western Atlantic Ocean and Gulf of Mexico.	Meridian of 90°W., Gulf of Mexico, East Coast of North America.	Meridian of 30°W., Coast of Greenland.	From To 0h. to 2h. 12h. to 14h. 16h. to 18h. 20h. to 22h.

Canada Shipping Act—continued

APPENDIX 3

(1) Periods of watch to be maintained by operator on ships compulsorily fitted with a radiotelegraph installation plying on the Great Lakes, including the River St. Lawrence as far east as Montreal:—

- (a) If the hours during which the ships are being navigated do not exceed 8 hours per day—continuous watch.
- (b) If the hours during which the ships are being navigated exceed 8 hours per day—as follows:—

<i>E.S.T.</i>	<i>E.S.T.</i>
7.00 a.m. to 7.30 a.m.	3.00 p.m. to 3.30 p.m.
8.00 a.m. to 8.30 a.m.	4.00 p.m. to 4.30 p.m.
9.00 a.m. to 9.30 a.m.	5.30 p.m. to 6.00 p.m.
10.00 a.m. to 10.30 a.m.	7.00 p.m. to 8.00 p.m.
11.00 a.m. to 11.30 a.m.	8.30 p.m. to 9.00 p.m.
1.00 p.m. to 2.00 p.m.	10.00 p.m. to 11.00 p.m.

In addition to these watches the operator shall copy the aids to navigation broadcast by the nearest Canadian coast station within range whenever the advertised time of transmission does not coincide with the watch-keeping periods prescribed above.

(2) Ships voluntarily fitted with a radiotelephone installation only—no fixed hours.

APPENDIX 4

(1) Periods of watch to be maintained by operator on ships compulsorily fitted with a radiotelegraph installation plying along the West Coast of Canada:—

- (a) If the hours during which the ships are being navigated do not exceed 8 hours per day—continuous watch.
- (b) If the hours during which the ships are being navigated exceed 8 hours per day—as follows—

<i>P.S.T.</i>
7.30 a.m. to 8.00 a.m.
9.30 a.m. to 11.30 a.m.
1.30 p.m. to 3.00 p.m.
4.00 p.m. to 5.00 p.m.
6.30 p.m. to 8.30 p.m.
10.00 p.m. to 11.00 p.m.

(2) Ships voluntarily fitted with a radiotelephone installation only—no fixed hours.

APPENDIX 5

(1) Periods of watch to be maintained by operator on ships compulsorily fitted with a radiotelegraph installation plying along the East Coast of Canada, including the Gulf and River of St. Lawrence as far west as Montreal:—

- (a) If the hours during which the ships are being navigated do not exceed 8 hours per day—continuous watch.
- (b) If the hours during which the ships are being navigated exceed 8 hours per day—as follows:—

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<i>E.S.T.</i>	<i>E.S.T.</i>
7.30 a.m. to 8.00 a.m.	4.00 p.m. to 4.30 p.m.
9.00 a.m. to 10.00 a.m.	6.00 p.m. to 7.00 p.m.
11.00 a.m. to 12.00 noon	8.00 p.m. to 9.00 p.m.
1.00 p.m. to 1.30 p.m.	*11.00 p.m. to 11.45 p.m.

* Watch may be discontinued after copying the last transmission of aids to navigation broadcast from the nearest Canadian Coast station.

(2) Ships voluntarily fitted with a radiotelephone installation only—no fixed hours.

APPENDIX 6

DOCUMENTS TO BE CARRIED BY SHIP STATIONS EQUIPPED WITH TRANSMITTING AND RECEIVING APPARATUS

1. Compulsorily fitted ships, except those plying solely on the Great Lakes.
 - (1) Radio Licence.
 - (2) Operator's(s') Certificate(s).
 - (3) Radio Log. (proces verbal.)
 - (4) International List of Call Signs.
 - (5) International List of Coast and Ship Stations.
 - (6) International List of Stations Performing Special Services.
 - (7) International Telecommunication Convention and annexed Radio Regulations in force.
 - (8) Canadian National Telegraphs or Canadian Pacific Telegraphs Tariff Book.
 - (9) Radio Regulations issued under the Canada Shipping Act, 1934.
2. Voluntarily fitted ships, and all ships plying solely on the Great Lakes (except those in Section 3 below).
 - (1) Radio Licence.
 - (2) Operator's(s') Certificate(s).
 - (3) Radio Log. (proces verbal.)
 - (4) International List of Call Signs.
 - (5) International List of Coast and Ship Stations.
 - (6) Radio Regulations issued under the Canada Shipping Act, 1934.
3. Voluntarily fitted ships using radiotelephony only and communicating solely with Canadian Stations.
 - (1) Radio Licence.
 - (2) Operator's(s') Certificate(s).
 - (3) Radio Log. (proces verbal.)
 - (4) Current Edition of Canadian Notice to Mariners "Radio Aids to Navigation."
4. Ships fitted with Receiving Equipment for navigational purposes only.
 - (1) Radio Licence.

Canada Shipping Act—continued

26. Regulations for the loading and carriage of grain cargoes

P.C. 2219

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of May, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of the Canada Shipping Act, 1934, is pleased to order as follows:

1. Orders in Council P.C. 1510 of April 8, 1948, and P.C. 1861 of April 29, 1948, which established and amended the Regulations for the Loading and Carriage of Grain Cargoes, are hereby revoked; and

2. The attached "Regulations for the Loading and Carriage of Grain Cargoes" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

REGULATIONS FOR THE LOADING AND CARRIAGE OF GRAIN CARGOES
IN VESSELS LOADED AT CANADIAN PORTS

GENERAL

(1) Plans.—Builders and Owners may submit for approval to The Deputy Minister of Transport, Ottawa, plans of a particular vessel showing their proposals for erection of shifting boards, feeders, etc. Preliminary plans should be in duplicate and may be on paper, final plans to be stamped *approved* must be submitted in quadruplicate on tracing cloth or linen backed paper.

All plans must be to scale.

Profile and plans not less than $\frac{1}{8}$ -inch—1 foot.

Half Section of vessel $\frac{1}{4}$ -inch—1 foot.

Details of fittings sufficiently large to indicate them clearly.

(2) (a) In these Regulations a reference to "Light Grain" means Oats and /or Cotton Seed. All other grain is "Heavy Grain."

(b) The provisions of Sections A, B, C, D, E, F and H apply to Heavy Grain cargoes; and with the modifications set out in Section G, apply to Light Grain cargoes, and to combined cargoes of Light Grain and Heavy Grain.

Section A. Preliminary Inspection of Bilges, Limbers, etc.

Section B. Shifting Boards, Uprights and Shores.

Section C. Construction of Feeders and Bulkheads.

Section D. Loading Regulations.

Section E. Freeboard.

Section F. Stowage.

Section G. Light Grain.

Section H. Safety.

Canada Shipping Act—continued**A.—PRELIMINARY INSPECTION OF BILGES, ETC.**

1. Agents, owners or masters of vessels arriving at a port in Canada for a grain cargo shall notify the Port Warden and make arrangements for a preliminary survey.

2. If the vessel has a plan showing the proposals for erection of shifting boards, feeders, etc., which has been approved by the Department of Transport, Ottawa, such plan must be submitted to the Port Warden for his information prior to his preliminary survey.

3. At the preliminary survey, sections of the limber-boards must be clear for inspection of the bilges, which must be clean and clear of any refuse liable to choke the suction pipes.

4. All pipes, gearing rods, and sounding tubes entering the bilges must be absolutely grain tight. Drain pipes and scupper pipes from compartments carrying bulk wheat must be blocked up.

5. Limber-boards must be grain tight.

6. Cement cappings or chocks must be in good condition.

7. Permanent ceilings on tank tops must be made grain tight and when laid on top of fuel oil tanks must have a clear space of $2\frac{1}{2}$ inches between ceiling and tank top and be laid on athwartship bearers.

8. The Port Warden, if requested, shall issue within 24 hours of the completion of such preliminary survey a written report setting out the repairs and work necessary to render the vessel fit to carry her proposed grain cargo and any modifications considered necessary for the erection of shifting boards, feeders, etc.

9. The report shall also specify the dunnage required to be laid.

B.—SHIFTING BOARDS, UPRIGHTS AND SHORES

1. Longitudinal grain tight shifting boards must be fitted from deck to deck or deck to ceiling in any compartment or hold in which bulk grain is carried and must be continuous for the whole length of the compartment or hold, excepting where vessels load parcels of bulk grain in the lower holds not exceeding one-third the capacity of their respective holds and provided the bulk grain is levelled and covered with platforms in accordance with Paragraph 5, Section F, and secured with approved cargo to prevent the grain from shifting.

2. Shifting boards are to be fitted in the hatchways and trunk feeders up to the bottom of the hatch covers.

3. Shifting boards of a minimum thickness of 2 inches of good sound lumber will be accepted.

4. The maximum unsupported span to be allowed for shifting boards of varying thickness is as follows (not to apply to permanent fittings):—

<i>Thickness</i>	<i>Span</i>	<i>Housing at Bulkheads</i>
2 in. planks	Unsupported span not to exceed 8 ft.	3 in.
$2\frac{1}{2}$ in. planks	Unsupported span not to exceed 10 ft.	3 in.
3 in. planks	Unsupported span not to exceed 12 ft.	3 in.

Canada Shipping Act—continued

5. When shifting boards have a greater unsupported span than the above, they must be supported by wood uprights or other approved means spaced with their centres at distances not greater than provided for by these figures.

6. Wood uprights must not be less than 10 inches in width and 2 inches in thickness.

7. Shifting boards must be securely housed at bulkheads, and where permanent angle bar stiffeners are not available for this purpose, wood uprights must be fitted not less than 6 inches in width and 3 inches in thickness shored to requirements.

8. Where 2½-inch or 3-inch shifting boards are used, longitudinal joints may be butt joints between uprights, care being taken to have at least 4 inches of plank supported. Where 2-inch shifting boards are used, joints must overlap by at least 9 inches between uprights.

9. Wood uprights must be supported by steel wire rope stays set up at the ship's side, or else by wood shores securely held against the permanent structure of the ship, such as frames or stringers at the ship's side, hatch coamings, girders, pillars, etc.

10. In all ships over 50 feet in breadth it is strongly recommended that instead of wood shores, steel wire rope stays be fitted for supporting the shifting boards.

All wood shores must be of good sound timber in a single piece.

11. The size of the shores required is based on the area of the boards to be supported, thus:—

The length of shores may in ordinary cases be taken as equal to half the registered breadth of the vessel less one foot.

S=spacing of shores fore and aft.

D=registered depth (reduced aft by the height of tunnel above floors).

N=number of shores in depth.

$$\text{Area per shore} = \frac{S \times D}{N + 1}$$

12. Convenient standard sizes of rectangular shores as follows may be taken as the minimum permissible sizes:—

<i>Length of Shores</i>	<i>Minimum Size</i>
Up to and not exceeding 16 ft.	6 × 4
Over 16 ft. and not exceeding 20 ft.	6 × 6
Over 20 ft.	8 × 6

Shores 24 ft. and over must be bridged and no shores are to be spliced.

13. Where difficulties and delays might be experienced in procuring scantlings as above, shores of lesser scantlings may be sanctioned, provided the area supported is reduced in proportion as may be prescribed by the Port Warden. Where vessels are already fitted with shores of lesser scantlings than prescribed by the above, the Port Warden may sanction the continued use of these provided the timber is in good condition and the area supported is reduced as may be prescribed by the Port Warden and approved by the Department of Transport.

Canada Shipping Act—continued

14. Vertical spacing of shores. The uppermost shore is to be within 18 inches of the top of uprights approximately in a line with the lower edge of hatch coamings and heeled against hatch coamings or girder; every succeeding shore is to be spaced 7 ft. apart vertically measured from the uppermost shore down, except that 8 ft. may be accepted between the lowest shore and heel support. Shores may be heeled on the permanent floors or ceilings provided that cleats or cants are used of sufficient dimensions to distribute the strain over several planks.

15. The angle between any shore and the surface to be supported must not exceed 45° from the horizontal.

16. When a shore is set at an angle exceeding 10 degrees from the horizontal the next larger size of shore to that required by its length must be used.

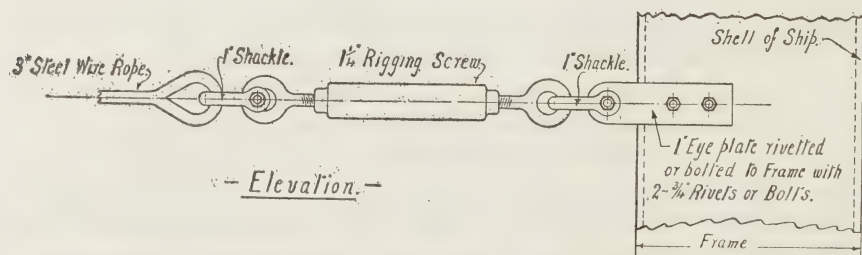
17. Uprights should be cleated to the floor or ceiling where fitted, and when the upright is not securely housed at the top the upper supporting shore should not be more than 18 inches down from the deck or top of the upright.

18. When either the hold or 'tween decks are fitted with tiers of closely spaced pillars these may be utilized for supporting the shifting boards, provided that they are of the approved size of deck beam pillars.

19. When the pillars are not reeled or staggered to support both sides of the shifting boards, additional support must be given by hook or U clamps spaced 6 feet apart.

20. When wire stays are used in lieu of shores for either permanent or non-permanent fittings, the following minimum sizes will be required:—

- (a) 3-inch flexible steel wire stays, fitted horizontally.
- (b) $1\frac{1}{4}$ -inch rigging screws, which preferably should be fitted at the side of the ship for convenience and easy access for tightening.
- (c) 1-inch shackles.
- (d) $1\frac{1}{4}$ -inch screw bolts through wood or angle-bar uprights.
- (e) Four $\frac{3}{8}$ -inch nut and screw bolts, for securing the wood uprights or steel angle bars together.
- (f) 1-inch eyeplates, efficiently riveted to side stringers or frames or 1-inch shackle through frame.



21. Where no special arrangements are made for grain tight filling between the beams, wood filling pieces the same thickness as the shifting boards must be fitted grain tight between the beams, and must be secured in place by cleats or scabs at both ends and fitted both sides. The cleats or scabs are to be at least 2 inches by 4 inches and must extend the full depth of the filling piece and as much again below, and be securely nailed or spiked to the shifting boards and filling pieces.

Canada Shipping Act—continued

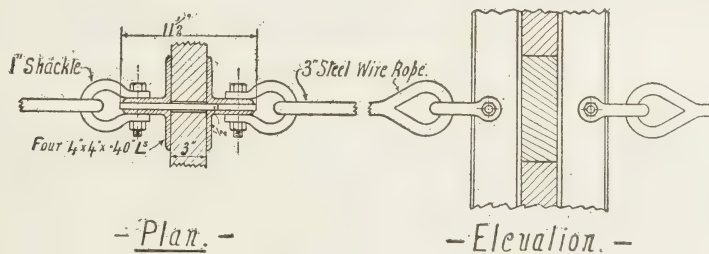
22. Where permanent steel uprights and wire stays are fitted which have been approved by the Canadian Department of Transport, the Board of Underwriters of New York or by the British Board of Trade, the maximum unsupported span allowed for boards of various thickness is as follows:—

<i>Thickness</i>	<i>Span</i>	<i>Housing at Bulkheads</i>
2½ in. planks	Unsupported span 12 ft.	3 in.
3 in. planks	Unsupported span 13 ft.	3 in.

23. Where steel uprights are secured as approved at both head and heel, one wire stay on each side of each upright will be accepted in holds 20 feet and under in depth, to be placed approximately one-third down from under deck. Over 20 feet two wire stays on each side of each upright will be required, the upper stays to be placed approximately one-quarter down from under deck and the lower stays at half depth of hold. In after holds depth to be measured to tunnel top.

24. The following dimensions are recommended for angle-bar uprights:—

Each upright to consist of four angle-bars 4 inches by 4 inches by .40 and steel plate 11½ inches by .50 riveted to form one complete structure allowing 4 inches housings on both forward and aft sides; equivalent brackets riveted to head and heel of uprights, each to take five 7⁄8-inch bolts with corresponding lugs and/or angles on tank top, tunnel top and hatch webs.



C.—CONSTRUCTION OF FEEDERS AND WOOD BULKHEADS

1. The walls of trunk feeders and wood bulkheads must be of sufficient strength to withstand the pressure due to the head of grain contained, and must be made grain tight.

2. Trunk feeders in the 'tween decks constructed in the hatchways must be made grain tight around the hatch coamings and hatch beams.

3. Ships having one or more decks with one continuous hold forward and/or one continuous hold aft with two hatches to each hold, shall have a well constructed bulkhead extending from side to side of the ship between the two hatches to divide the space.

4. Thwartship bulkheads in holds for partitioning holds or reserve bunkers shall be constructed of planks not less than 3 inches in thickness, efficiently stiffened and shored.

Canada Shipping Act—continued

5. Trunk feeders in the 'tween decks fitted in the hatchways may be constructed of planks worked vertically of a minimum thickness of 2 inches. When the vertical unsupported span exceeds 8 feet, thicker planks must be used, or increased stiffening must be fitted as the Port Warden may require.

6. Where more convenient, feeders may be constructed of studding and lined with grain tight boards 2 inches in thickness or two 1-inch layers of shiplap, laid horizontally with broken joints. Studding where possible should be placed inside the hatch coamings and must be not less than 4 inches by 6 inches on edge spaced not more than 2 feet centres.

Wing feeders are to be constructed in a similar manner. Feeders already erected may be accepted if such feeders are equal from a structural standpoint to specifications as outlined.

7. Engine room and stokehold bulkheads and donkey recesses where subjected to heat must be sheathed with wood and made grain tight. An air space of at least 6 inches should be left between the bulkhead and the sheathing and a box trunk ventilator 6 inches by 8 inches should be provided from the top of the air space to a ventilator or hatchway, or other equal and approved means of ventilation adopted.

8. Sheathing should be supported on vertical wood runners spaced not less than 2-foot centres and should consist of 2-inch planks or two thicknesses of 1-inch boards laid to break joint.

D.—LOADING REGULATIONS

In these regulations "steamship" includes any vessel propelled wholly or in part by steam or by any machinery or power other than sails or oars.

Single Deck Steamships

1. Single deck steamships with high hatch coaming may load full cargoes of grain in bulk below deck. The hatch coamings may be used as feeders provided they contain not less than 2 per cent of the capacity of the hold they are designed to feed and are so placed that they are capable of feeding the centre and both ends of such hold.

2. Where no provision is made for feeding the hold, the bulk grain must be secured by four heights of bagged grain laid on a suitable platform on top of the grain in bulk.

3. Grain in bags may be carried above deck in deck erections when complying with regulations *re* dunnage.

Two Deck Steamships

1. Two deck steamships may carry bulk grain to the full capacity of all lower holds, provided properly constructed feeders are fitted in the hatches and trunked in the 'tween decks, and, if necessary, with supplementary feeders as required by Paragraph 4, "Stowage." Such feeders shall contain not less than $2\frac{1}{2}$ per cent and not more than 8 per cent of the capacity of the hold they are designed to feed and be so placed that they are capable of feeding the centre and both ends of such hold.

2. All other grain in the 'tween decks and/or deck erections must be in bags, complying with regulations affecting dunnage.

Canada Shipping Act—continued

Two Deck Steamships with Bridge Deck or Bridge and Poop Combined

3. Two Deck Steamships having a Bridge Deck or Bridge and Poop Combined, constituting in each case a third deck over a partial length of vessel, may carry bulk grain in the lower 'tween decks in that part of the vessel where there are three decks, providing properly constructed feeders are erected between the uppermost and second decks to efficiently feed the bulk grain in the respective 'tween decks and lower holds—as in the case of Three Deck Steamships.

Three Deck Steamships

1. Three deck steamships may carry bulk grain to the full capacity of all lower holds and lower 'tween decks, provided properly constructed mid-ship feeders are fitted trunked in the upper 'tween decks, and the third deck down is fitted with the proper trimming hatches suitably placed to feed the wing spaces and ends of the holds. If the third deck down is fitted with proper trimming hatches the lower hold and the lower 'tween decks may be considered as one hold and loaded accordingly. All hatches and trimming hatch covers on the third deck down are to be left off. The feeders shall contain not less than $2\frac{1}{2}$ per cent and not more than 8 per cent of the combined capacity of the lower holds and 'tween decks which they are designed to feed.

2. Lower holds and lower 'tween decks when loaded to capacity may be loaded as separate compartments, provided that properly constructed feeders are erected in both upper and lower 'tween decks to efficiently feed the bulk grain in both the lower holds and lower 'tween decks independently. The feeders shall contain not less than $2\frac{1}{2}$ per cent and not more than 8 per cent of the compartments they are designed to feed.

3. All other grain in the upper 'tween decks and/or erections must be in bags.

4. Deep Tanks.—Vessels loading part cargoes of bulk grain not exceeding two-thirds of the total cargo carrying capacity of such vessel will not be required to have a feeder for the deep tank, provided the deep tank is divided by a steel centre longitudinal bulkhead and that the bulk grain is well stowed, the tank completely filled and hatch covers secured. Feeders will be required over deep tanks for vessels loading in excess of this quantity.

E.—FREEBOARD

1. The freeboard of all ships laden with grain shall not be less than that assigned under the laws of the country in which they are registered.

2. In the case of ships laden with grain not having a freeboard certificate, the Master, on arrival, shall make application to a representative of any recognized classification authority for a freeboard certificate and shall produce such certificate to the Port Warden before clearance will be granted.

F.—STOWAGE

1. In loading, the grain shall be properly stowed, trimmed and secured.

2. Feeders must be suitably arranged as far as possible to feed the different parts of the holds or compartments and when this can be done in ships of ordinary proportions the minimum capacity of feeders in 'tween

Canada Shipping Act—continued

deck vessels is not to be less than $2\frac{1}{2}$ per cent and not more than 8 per cent of the capacity of the holds which they are designed to feed, and in the case of single deck vessels the minimum capacity of the deep hatch coamings is not to be less than 2 per cent capacity of the holds.

3. The capacity of feeders is to be the net internal capacity after allowing for shifting boards, shores or bulkheads in such hold and the nearest end of the hatchway feeder exceed 25 feet (unless in the opinion of the Port Warden the distance should be less) the vessel must have a supplementary feeder provided on each side of the 'tween decks forward and aft to feed the space in the hold below; the size of the supplementary feeder to be prescribed by the Port Warden. Provided that if supplementary feeders to the lower holds are not fitted the grain in the end spaces shall be levelled off and a proper platform provided and 4 tiers of bagged grain stowed on the platform to within 25 feet of the end of the main feeder. This rule shall apply to the lower 'tween decks in the case of 3-deck vessels when the compartment and the hold under are loaded as one compartment.

If the depth of the hatch end beams or coamings exceeds 15 inches, special means must be adopted to allow the grain to pass from the feeders to the holds. When the depth is 16 inches, 2 inches in diameter and when 18 inches, $3\frac{1}{2}$ inches in diameter feeding holes are sufficient when spaced not more than 2 feet apart.

4. In ships fitted with 'tween decks should the distance in the lower holds between the forward and after bulkheads in such hold and the nearest end of the hatchway feeder exceed 25 feet (unless in the opinion of the Port Warden the distance should be less) the vessel must have a supplementary feeder provided on each side of the 'tween decks forward and aft to feed the space in the hold below; the size of the supplementary feeder to be prescribed by the Port Warden. Provided that if supplementary feeders to the lower holds are not fitted the grain in the end spaces shall be levelled off and a proper platform provided and 4 tiers of bagged grain stowed on the platform to within 25 feet of the end of the main feeder. This rule shall apply to the lower 'tween decks in the case of 3-deck vessels when the compartment and the hold under are loaded as one compartment.

5. When bulk grain does not completely fill the compartment in which it is carried and is secured by bagged grain or other suitable cargo laid on top of the grain in bulk, such bagged grain or other cargo shall be supported on platforms laid on the bulk grain and so stowed as to prevent the grain from shifting.

6. Platforms are to consist of thwartship bearers spaced not more than 4 feet apart and 1-inch boards laid fore and aft spaced not more than 4 inches apart.

7. Ships loading parcels of bulk grain in any of the lower holds forward of the engine room, where the quantity loaded does not exceed one-third of the capacity of such holds, and when loading in the lower holds abaft the engine room, where these compartments are divided by the tunnel or tunnels, and where the quantity loaded does not exceed one-half of the capacity of such holds, will not be required to have shifting boards in the respective holds so loaded, but the bulk grain is to be levelled off and covered with a platform as required by paragraphs 5 and 6 of this section and overstowed by six tiers of bagged grain or the equivalent in general cargo to the approval of the Port Warden. This rule, however, does not apply to vessels loading full cargoes of bulk grain when the end holds may be only partially filled, nor to any partially filled compartment not included in the above, when shifting boards must be fitted, the grain levelled off and covered with a platform as required by paragraphs 5 and 6, and overstowed by not less than four tiers of bagged grain or other approved cargo.

8. Partially loaded vessels proceeding to another port in the vicinity of Vancouver to pick up additional cargo to be laid on the bulk grain may proceed to such ports without securing the bulk grain provided such ports are to the eastward of Cape Flattery and south of the parallel 50° North; under similar conditions vessels may proceed from Montreal to Quebec.

Canada Shipping Act—continued

9. Shifting boards need not be fitted in holds, between decks, or deck erections containing grain in bags with no grain in bulk or when the quantity of bulk grain overstowed with bags is not such that the regulations otherwise require boards to be fitted.

10. Bagged grain shall be carried in sound bags of approved material and shall be machine-sewn or securely hand-sewn or mechanically closed when filled.

11. Bagged grain cargo stowed on iron or on steel decks is to be properly dunnaged.

12. Where cargo battens are not fitted, bagged grain cargo must be properly dunnaged from the ship's side.

13. When grain cloths of approved quality are laid over the ceilings covering water ballast tanks to the approval of the Port Warden the caulking of the seams of the ceilings or the coverings of the seams with battens may be dispensed with.

14. In the case of vessels of modern construction with specially heavy ballast tank top plating in good conditions without wooden ceiling, certificates may be granted to load bulk grain, provided the bilges and water courses in the wings are sufficiently deep and that proper precautions are taken against overflow from the bilges and leakage from manhole covers, air and sounding pipes, etc.

15. Paragraphs 11 and 12 do not apply to vessels loading cargoes of bulk grain when the grain in 'tween decks is bagged to comply with Loading Regulations only and which will ultimately be discharged in bulk; in which cases dunnage and vertical battens over 'tween deck sparring may be dispensed with. This is not to affect in any way the requirements for protecting cargoes or consignments of Bagged Grain.

G.—LIGHT GRAIN

1. Light Grain may be carried in bulk in all between decks and lower holds subject to the requirements laid down in Sections A, B, C, D, E and F.

Hatch webs and fore and afters to be secured in place.

2. Feeders. (a) For single deck steamships, Section D, loading regulations will apply.

(b) For steamships having two decks, grain tight feeders in accordance with Section C are to be erected in hatches and trunked in 'tween decks to feed the lower holds and to contain not less than $2\frac{1}{2}$ per cent and not more than 8 per cent of the capacity of the holds they are designed to feed.

These trunk feeders must not interfere with or decrease the 2 per cent which is required to be carried within the hatch coamings to feed the 'tween decks.

(c) For steamships having three decks, regulations as outlined for feeders in two deck vessels will apply; to be erected in the upper 'tween decks to feed the lower 'tween decks and lower holds, hatches and trimming hatches in lower 'tween decks to be left off.

Canada Shipping Act—continued

3. Light Grain may be loaded in bulk in 'tween decks over Heavy Grain in lower holds, provided that the above regulations are observed and that proper separation is made.

4. In steamships where 'tween decks and/or shelter decks are not subdivided, bulkheads are to be constructed as per Section C, Paragraph 4, to divide such shelter or 'tween decks into compartments of a maximum length of not exceeding 70 feet.

5. All grain in Poop, Peaks or Bridge Space must be in bags; regulations for dunnage must be complied with.

H.—SAFETY*Coal on Deck*

No coal shall be carried on deck of steamers sailing between the 1st of October and the 1st of April, beyond such a supply as will be consumed prior to vessels reaching the open sea.

Security of Hatches

Port Wardens should pay special attention to the security of hatchways and other weather deck openings; they should satisfy themselves that the hatch covers and their supports are in good condition and that the steamer is provided with good and sufficient tarpaulins, cleats and wedges to enable the hatches to be properly battened down.

For winter passage, North Atlantic, additional security should be provided by the use of:

- (a) Folding wedges, also known as double or fox wedges, or cleats set at an angle with ordinary wedges.
- (b) Locking bars in suitable number and position to secure the hatch coverings; or
- (c) Wire cross lashings set up by screws or other equally effective means. At all times lashings are to be set up to ring bolts or permanent cleats at the side of the hatches with suitable chafing pieces to prevent cutting of tarpaulins.

27. Regulations for the Government of Public Harbours in Canada

P.C. 3080

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 8th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 596 of the Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

Canada Shipping Act—continued

1. The General and Special Regulations for the Government of Public Harbours in Canada, established by Order in Council P.C. 154 of 26th January, 1937, are hereby revoked; and

2. The annexed Regulations for the Government of Public Harbours in Canada are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS FOR THE GOVERNMENT OF PUBLIC HARBOURS IN CANADA

Definitions

1. In these Regulations, unless the context otherwise requires:

- (a) "Minister" means the Minister of Transport;
- (b) "Harbour Master" means the Harbour Master duly appointed by the Minister, and includes the Deputy of the Harbour Master;
- (c) "vessel" includes any floating property so constructed as to be capable of being navigated, propelled or towed, from place to place by water, whether with self-propelling devices or not, but does not include rafts or booms of logs;
- (d) "power vessel" includes any kind of vessel used in navigation equipped with machinery to attain the propulsion of such vessel.

PART I—GENERAL

Application of regulations

2. The following general regulations shall apply to every harbour that has been or may hereafter be proclaimed a public harbour pursuant to the provisions of the legislation enacted for that purpose, in addition to any special regulations which have been or may hereafter be approved for individual harbours and which are herein or may hereafter be embodied under the heading "Special Regulations"; and wherein any of the general regulations herein may conflict with or be contradictory to any provision of any special regulation, then such special regulation shall be held to apply.

Remuneration of Harbour Master

3. Each Harbour Master shall receive for his services such amount as may be fixed by the Governor in Council out of the harbour dues collected by him as hereinafter provided.

Canada Shipping Act—continued

HARBOUR MASTERS' FEES AND CHARGES

Scale of Charges

4. The master, owner or person in charge of every vessel liable to pay harbour dues under the provisions of this regulation shall pay to the Harbour Master, or other person in charge of a public harbour, the following charges or dues, namely:

Zone one

(1) On vessels entering any public harbour in Canada from any port or place in North America, Newfoundland, or any British possession in or bordering on the North Atlantic ocean or Caribbean sea in the western hemisphere:—

- (a) If such vessel be registered, one and a half cents ($1\frac{1}{2}$ c) per ton on her net registered tonnage—with a minimum charge of fifty cents;
- (b) If such vessel be unregistered, the charge shall be calculated as follows:—

The area in square feet of a parallelogram, one side of which shall be the length of the vessel and the other side of which shall be the greatest breadth of such vessel, shall be computed and one-half the result thereof multiplied by one-quarter cent ($\frac{1}{4}$ c) per square foot, and the product thereof, in cents, shall be the amount payable on such vessel as harbour dues.

Zone two

(2) On vessels entering a public harbour from any other port or place than those specified as in Zone one:—

- (a) If such vessel be registered, two and a half cents ($2\frac{1}{2}$ c) per ton on her net registered tonnage—with a minimum charge of one dollar and fifty cents (\$1.50);
- (b) If such vessel be unregistered, the charge shall be calculated as follows:—

The area in square feet of a parallelogram, one side of which shall be the length of the vessel and the other side of which shall be the greatest breadth of such vessel, shall be computed and one-half the result thereof multiplied by one-half cent ($\frac{1}{2}$ c) per square foot, and the product thereof, in cents, shall be the amount payable on such vessel as harbour dues.

Exception: Ships taking coal for own bunkers only

(3) On vessels entering a harbour for the purpose of taking on board coal for their own bunkers only, a charge amounting to one-quarter of one cent ($\frac{1}{4}$ c) per ton on the net registered tonnage of the vessel—with a maximum charge of \$30; on vessels entering to take on cargoes of coal, however, the regular charge provided for in subsections (1) and (2), respectively, of this section, as the case may be.

Limitation of payments

5. (1) The dues provided for by Regulation No. 4 shall be paid by every vessel not more than twice in each calendar year at her first and second entries to any public harbour inward or outward, as the case may

Canada Shipping Act—continued

be, provided that payment of harbour charges or dues in a harbour under the administration of a Harbour Commission shall not count as a payment at a public harbour proclaimed as such under the Canada Shipping Act, and the payment to be made under the provisions hereof shall be in addition to payments made to any Harbour Commission in respect of harbour dues.

(2) Vessels belonging to His Majesty or to any government or ships engaged solely in fishing, other than trawlers or steamships trading in fish, or ships that may enter a public harbour for refuge in case of storm or accident, or ships entering for repairs only, and ships exempted by treaty or regulations thereunder, also privately owned pleasure vessels or yachts, shall not be liable to pay harbour dues.

(3) In cases where a charge for bunkering under subsection 3 of section 4 has been paid: (a) vessels bunkering and not handling cargo shall pay the special bunkering charge not more than twice in the calendar year; (b) payment of the charge for bunkering once or twice in the calendar year shall not relieve a vessel from payment of the regular harbour dues, if, and when, cargo is handled at a later entry; (c) in cases where the regular harbour dues are demanded on later entry the previous payment or payments for bunkering shall be deducted so that the total amount paid for any vessel in the calendar year shall not exceed the amount of two payments of regular harbour dues required.

6. On the payment of any of the above prescribed fees to the Harbour Master, the latter shall issue to the party paying an official numbered harbour master's receipt which shall be made out in triplicate, and the original and duplicate shall be delivered to the party making payment, while the triplicate shall be retained by the Harbour Master. When the master, owner or person in charge desires to remove his vessel after payment of the prescribed dues, from the harbour, he shall apply to the nearest Customs Officer for a clearance for said vessel from the harbour and shall exhibit to him the receipts for the payment of said dues and deliver to him the duplicate copy of same, which the Customs Officer shall take up from the payee and forward to the Department of Transport, Ottawa, in official addressed envelopes which will be supplied him either from the Harbour Master or direct from the Department mentioned, on application. (Vide official Customs Circular No. 252-C.)

7. No vessel shall leave the harbour until the master, owner or person in charge thereof has reported to and received a clearance from the nearest Officer of Customs to the port and shall have deposited with him the duplicate of the harbour master's receipt delivered to him for payment of such dues, under the penalty hereinafter provided for. In case an Officer of Customs is not available at a reasonable distance from the harbour, the master, owner or person in charge of the vessel desiring to clear from the harbour shall report to the Harbour Master, advise him that he had not obtained clearance from the Customs Officer and request from him an official permit or let-pass to leave the harbour, and shall at the same time deposit with him the duplicate of the receipt for dues previously obtained from the Harbour Master, which the latter shall at once forward to the Department of Transport, Ottawa. The Harbour Master shall have authority to issue the permit or let-pass referred to at all harbours for which there is no Customs Officer appointed. The receipt of the harbour master's let-pass, however, shall not relieve the person in charge, nor the vessel, from compliance with any of the provisions or requirements of the Customs Act.

Canada Shipping Act—continued*Power vessels to be equipped with exhaust mufflers*

8. All power vessels while operating within the limits of a public harbour shall be equipped with an effective exhaust muffler of accepted stock pattern and such exhaust muffler shall not be cut out when the vessel is within one-half mile of any residence, school, church or other public building.

Power vessels speed limits

9. No power vessel within the limits of any public harbour shall be operated at a speed greater than ten miles an hour over the ground when passing other vessels and/or tows or floating works or works under construction and when within 400 feet of any wharf, float, mooring jetty or basin or floating plant or property, its speed shall be reduced to not more than eight miles an hour.

International Rule of Road to apply

10. The International Rule of the Road shall apply and be strictly observed by all vessels in the public harbours on the Atlantic and Pacific Coasts of Canada within the limits fixed therein for the application of such rules and the Rule of the Road for the Great Lakes shall similarly apply in all the harbours of the Great Lakes.

ARRIVING VESSELS

Harbour Master to assign berths

11. No vessel shall take a berth or tie up at any wharf, quay wall, pier or other landing place, in any harbour, unless assigned thereto by the Harbour Master.

Harbour Master to determine mooring places

12. The place for mooring at or fastening to any wharf or pier, or for the anchoring of any vessel, in any harbour shall be fixed and determined by the Harbour Master, as in his opinion shall best promote the interests of those doing business in or about the said harbour.

Small commercial vessels and pleasure craft berthing

13. Small commercial vessels and pleasure craft shall not take up any berth in a public harbour without the consent of the Harbour Master and shall not be moored to wharves or dolphins or any other fixed objects in a harbour in such a manner or location as to encumber the harbour channels or the berths at the wharves or impede navigation of other vessels.

Vessels suspected of infectious or contagious diseases

14. When there is cause to apprehend the presence of any infectious or contagious disease on board any vessel arriving in any public harbour, or when such vessel has come from any locality where such infectious or contagious disease is known to be prevalent or epidemic, the Harbour Master may designate and set apart some anchorage or berth where such vessel shall go and remain for inspection until proper sanitary precautions have been taken to the satisfaction of the nearest official health officer.

Canada Shipping Act—continued

Berths at private wharf

15. (1) It shall be the duty of the Harbour Master, when desired by the owner or consignee, to assign a berth in the harbour at any privately owned wharf or pier, to vessels, owned, possessed or chartered by, or consigned to, proprietors of said wharf or pier, and no other vessel shall be assigned a berth at such wharf or pier, except with the permission in writing of, or upon instructions in writing from, the owners of such wharf or pier.

Vessels at private wharves subject to regulations

(2) Such vessels so assigned to any private wharf or pier, in any harbour, shall be subject to all the provisions of the regulations in force for said harbour, and shall be under the supervision of the Harbour Master with regard to conformance to such regulations.

Vessels on arrival to anchor and report

16. The person in charge of any vessel coming into any harbour, to whom a berth has not already been assigned by the Harbour Master, or the person in charge of any vessel hauling or towing into a harbour any floating property of any kind or nature not actually assigned any berth, shall, on arriving in such harbour:

- (i) Anchor such vessel and floating property, temporarily, in a safe place, in such a manner as not to impede the free navigation of the harbour or obstruct or prevent the safe docking or undocking of any vessel; nor to be unsafe or dangerous to any other vessel previously lying at anchor in the harbour or moored or fastened to any wharf or pier. The property in tow, if any, shall remain attached to the towing vessel by the tow line and the latter shall be shortened to bring the property attached to within twenty feet of the stern of the tow vessel.
- (ii) Report forthwith to the Harbour Master;
- (iii) Wait the direction of the Harbour Master as to the place for mooring, anchoring or fastening such vessel or floating property before proceeding to any wharf or pier.

Removal of vessels temporarily anchored if obstructing navigation

17. If any such vessel so arriving and anchoring or mooring temporarily shall be so placed, anchored or moored as to be unsafe or dangerous to any other vessel previously at anchor in the harbour, or moored or fastened, or as to prevent or obstruct the docking or undocking of any other vessel; or in any way impede navigation in the harbour, the Harbour Master is authorized and required forthwith to order and direct the situation of such vessel, so arriving and temporarily anchored or moored as aforesaid, to be altered in such a manner as to prevent such insecurity, danger, obstruction or impediment; and the person having charge of such vessel shall comply with the orders and directions of the Harbour Master in this respect.

Loading and unloading

18. (1) On report, as required by section 16 (2), being so made to him by the person in charge of any such vessel so arriving, it shall be the duty of the Harbour Master forthwith to fix, determine and assign the position which the said vessel shall occupy in the harbour and the place at which it shall be loaded or unloaded, and to direct the manner in which it shall be so loaded or unloaded.

Canada Shipping Act—continued*Vessels to take berth assigned forthwith*

(2) Immediately after such place and position is so fixed, determined and assigned by the Harbour Master, the said vessel shall proceed thereto and take its berth.

MOVEMENT OF VESSELS AFTER BERTHING*Removal of any vessel*

19. The Harbour Master shall have power to order the removal of any vessel, whenever he deems it necessary to do so to best promote the interests of those doing business in or about the harbour, from any one location to any other location of the said harbour.

Vessels lying alongside other vessels

20. Should it be necessary for any vessel so directed by the Harbour Master to lie alongside of, or moor or make fast to, any other vessel or vessels, it shall be lawful for the officers and crew of the outside vessel and others having business with them to work over the deck of the inside vessel or vessels in the loading or unloading of such outside vessel without obstruction or interference from the officers or crew of such inside vessel or vessels, provided the inside vessel or vessels shall not be damaged or obstructed thereby.

Vessels not to change berth without permission

21. No vessel shall move from the berth assigned her to any other berth in the harbour without having been authorized to do so by the Harbour Master. The person in charge of any vessel violating this section shall be liable to the penalty hereinafter provided.

Harbour Master to go on board vessel on arrival

22. Within twelve hours after the arrival of any vessel of a registered tonnage of twenty tons or upwards, at her assigned berth in any harbour—not including vessels engaged exclusively in fishing—it shall be the duty of the Harbour Master to visit the said vessel to see and ascertain that she is moored, anchored or fastened in accordance with the provisions of these regulations at the location fixed and determined by him, and only in such a position as has been assigned to her, pursuant to these regulations.

Vessels to be moved when ordered

23. Whenever any vessel, whether temporarily or otherwise anchored or moored, or lying at berth or alongside of or fastened to any wharf or pier, in any part of the harbour, is directed by the Harbour Master to move to any other part of said harbour and is short of hands so that she cannot be removed according to orders received, the person in charge of said vessel shall procure, either through the Harbour Master or any other person, the help required and shall make such removal within the limit of time fixed by the Harbour Master for effecting the same.

Harbour Master to procure help to remove vessel

24. (1) It shall be the duty of the Harbour Master, whenever requested by the person in charge of a vessel in cases mentioned in the preceding section, to procure the latter the help required to make the removal directed.

Canada Shipping Act—continued

Refusal to remove vessel

(2) In case the person in charge of a vessel refuses or neglects to procure the help required to make the removal as directed within the time so fixed, according to section 23 above, or neglects or refuses to make any removal ordered according to the present regulations, or in case no person can be found in charge of such vessel, such removal may be made by the Harbour Master; and the person in charge of any such vessel refusing to allow, or opposing or obstructing, or any person so opposing or obstructing the said removal shall be liable to the penalty for violation hereof hereinafter provided.

Vessels in harbour to be rigged

25. The person in charge of a schooner, square-rigged vessel, scow, steamer, or any other vessel, lying in the harbour or at any of the piers or wharves, shall top its lower yards or brace them fore and aft, and rig in its jib-booms, spanker-booms, davits and anchors.

CONDITIONS TO BE OBSERVED BY VESSELS WHILE LYING IN HARBOUR

Rigging not to incommode other vessels

26. Whenever the Harbour Master shall find any vessel at the wharves with the jib or spanker-booms rigged or yards braced so as to incommode other vessels, it shall be his duty to direct such booms to be rigged and such yards to be braced or cockbilled in such a manner as not to incommode such other vessels, and the person in charge of any such vessel so incommoding shall obey the directions so given by the Harbour Master.

Lights on vessels at anchor

27. The person in charge of any vessel lying at anchor in the harbour shall exhibit in the forepart of such vessel, from sunset to sunrise, at all times from the opening to the complete closing of the season of navigation, a bright white light, visible all round the horizon, at a height not exceeding twenty feet.

Lights on vessels at wharves

28. The person in charge of any vessel lying at any wharf in the harbour shall exhibit a white light at each end of such vessel at a height not exceeding six feet above the deck.

Lights on rafts or logs in tow

29. Every raft or boom of logs in tow shall exhibit, from sunset to sunrise, a bright white light at each corner of the stern end, at a height of not more than six feet, visible all round the horizon.

Lights on rafts or logs at anchor

30. Every raft or boom of logs anchored in a harbour shall exhibit from sunset to sunrise, at all times from the beginning to the complete close of navigation, a bright white light at each corner, at a height of not more than six feet, visible all round the horizon.

Canada Shipping Act—continued*Vessels having a fire on board to employ watchman*

31. The person in charge of any vessel having a fire on board during the day shall have a watch kept during the night, and, in default of such watch being kept or if a watchman be found asleep, such person in charge of such vessel shall be liable to the penalty for violation hereof hereinafter provided.

Unnecessary whistle sounding prohibited

32. No steam or electric whistle or horns, or any other device for the production of sound for purposes of signalling, shall be unnecessarily sounded in the harbour but only for giving of such obligatory warning or alarm signals as any existing recognized navigation regulation may provide for.

OBSTRUCTING OTHER VESSELS

Vessels not to be in front of ferry-landings

33. No vessel shall lie in front of any ferry-landing or other public slip, or use any rope, chain or shore-fast extending over or across any ferry-landing or public slip, or the entrance thereto, or in any manner prevent the free ingress or egress thereto or therefrom; or be anchored or moored so as to obstruct the track of the ferry steamers.

Tow-lines not to be made fast to wharves

34. No vessel lying in the harbour shall have any tow-line, hawser or other thing made fast to any wharf or to the shore except for the purpose of hauling in and out, without the permission of the Harbour Master.

DISPUTES BETWEEN VESSELS

Settlement of disputes

35. In case of any dispute arising between masters, owners or other persons engaged in hauling vessels in or out of any of the docks or wharves, it shall be the duty of the Harbour Master, if called upon, to give such directions as he may think fit in respect of the same; and persons having the charge or command of any such vessels shall comply with the directions of the Harbour Master in these respects.

PROTECTION OF BUOYS AND BEACONS

Vessels not to be moored to any beacon or public buoy

36. No vessel shall be moored or fastened to any beacon or public buoy in any harbour; and the person in charge of such vessel shall be liable to the penalty, hereinafter provided, for violation hereof.

Interference with beacons

37. Any person injuring, altering or changing in any manner any beacon or public buoy in any harbour shall be liable to the penalty hereinafter provided.

Canada Shipping Act—continued

Employment of watchman

38. No vessel shall be left without some person to take care of it by night and day, when anchored in the harbour, at all times from the beginning to the complete close of navigation; but this section does not apply to booms of logs properly moored, in the place assigned by the Harbour Master, in conformity with these regulations and with the instructions given by the said Harbour Master, nor to vessels for which wintering arrangements have been made with the Harbour Master.

GENERAL SAFETY PROVISIONS

Speed—General

39. Every large vessel when passing booms in tow, small vessels or open boats, in the harbour, shall reduce its speed consistent with the safety of the smaller vessels.

Navigation

40. Any vessel when in harbour shall navigate with caution, having due regard to life and property, under the penalty for violation hereof hereinafter provided, to be paid by the person in charge of said vessel in fault.

Information to be given Harbour Master about tows

41. (1) The persons in charge of a vessel hauling, or towing, into a harbour any logs or other floating property of any kind or nature shall, upon making the report to the Harbour Master, as required by Section 16 (ii) above, supply the said Harbour Master with a statement in writing, duly dated and signed by him, specifying the name of the vessel so hauling or towing, the approximate number of logs or the nature of such floating property so hauled or towed, together with the names of the consignor and consignee thereof.

Person in charge of tow

(2) The person in charge of any such vessel so hauling or towing into a harbour any such logs or floating property shall be deemed, in the application of these Regulations (General or Special) to be the person in charge of said logs or floating property until he has the same property moored at the place and in the manner directed by the Harbour Master.

Information about logs

(3) The person in charge of any logs in any harbour shall furnish to the Harbour Master, at any time, upon his request, any information in writing with reference to such logs which the Harbour Master may require in the carrying out of his duties.

Gangways—Lights

42. Every vessel while lying at any berth at any wharf, dock or quay wall, or any pier, assigned to it by the Harbour Master, at all times between the opening to the complete closing of any season of navigation, shall be provided with a gangway railed on both sides, in order to prevent accidents, under the penalty for violation hereof hereinafter provided; and, during

Canada Shipping Act—continued

the night, there shall be kept burning, at the head of such gangway, at least four feet above the deck, a clear bright light, from sunset until sunrise, under the penalty for violation hereof hereinafter provided, to be paid by the person in charge of the vessel so contravening.

Obstructing Harbour Master

43. Any person or persons who hinder, oppose, molest or obstruct the Harbour Master or any of his assistants in the discharge of his or their duty, shall incur the penalty for violation hereof hereinafter provided.

Vessels from port where bubonic plague is present or suspected

44. (1) It shall be unlawful for any vessel coming from any port where bubonic plague is present or is suspected of being present, and entering any public harbour in Canada, to be docked or moored in still waters at a less distance from any wharf than six feet, and where owing to the strength of the current such distance from a wharf cannot be maintained, then the distance shall be as near to six feet as in the opinion of the Harbour Master circumstances permit.

Gangway if attached to wharf must be guarded

(2) It shall be unlawful for any vessel coming from any port where bubonic plague is present or is suspected of being present, and entering any public harbour in Canada, to be connected with any wharf by a gangway which is not guarded by some person there for the purpose of preventing rats from leaving such vessel by such gangway, and all gangways shall be lifted when not in use.

ABANDONMENT IN HARBOUR

Vessels not to be abandoned in harbour

45. No vessel shall be left, or abandoned and out of commission, by the master, owner or person in charge thereof, within the limits of any public harbour, without the consent of the Minister in writing first obtained, under the penalty in case of contravention of this regulation hereinafter provided, and it shall be the duty of the Harbour Master to obtain and enter in his register the name of the master or person in charge, and if possible the name and address of the registered owner, of any vessel not having exhibited such permit which may be lying in or occupying any part of the harbour and not in commission within ten days after its entry therein, and report same to the Minister within thirty days of its entry, to receive such instructions as the Minister may deem desirable in relation thereto.

LOADING OR DISCHARGING

Canvas or tarpaulin protectors

46. Any vessel loading or discharging coal, ballast and such materials, shall have a sufficient canvas or tarpaulin or other protection so placed as to prevent any portion of the cargo of such vessel from falling into the waters of the harbour.

Canada Shipping Act—continued**REMOVAL OF MATERIALS FROM CROWN PROPERTY***Movement of materials from Crown property without permission prohibited*

47. It shall be the duty of the Harbour Master to prohibit the removal of the stone, sand or gravel, or any other material, from any part of the public beach or shore of the harbour under his charge, except on written authority of the Minister permitting such removal, and when and if such permit is exhibited to him he shall see that the material is removed from the locality specified in the permit, and shall keep tally of the number of loads removed in accordance with the provisions of the said permit, and shall make a report to the Minister at such times as he is required to of the number of loads and the quantity of material removed under each permit. Any person or persons removing any such material without having first obtained authority as above stipulated shall be liable to the penalty for contravention of this regulation hereinafter provided.

POLLUTION OR ENCUMBRANCE OF SHORES OR BOTTOM*Ballast grounds*

48. No ballast, stone, gravel, earth, cinders, ashes or any other material or rubbish, shall be unladen, discharged, deposited, laid, cast or emptied out or thrown from any vessel or in any other manner, or by any person from any wharf or from any part of the beach or shore, into any part of the harbour, or upon the beach or shore thereof, except at the places set apart for that purpose and specified in writing by the Harbour Master and under his direction, under the penalty for violation hereof hereinafter provided, to be paid by the person having the charge of the vessel from which any such matter as aforesaid shall have been so discharged, unladen, deposited, laid, cast or emptied out or thrown; or by any other person or persons violating this Regulation.

Ballast not to be unladen at certain times

49. In places so set apart and specified in writing by the Harbour Master for the deposit of material mentioned in the preceding section, no such materials shall be unladen, discharged, deposited, laid, cast or emptied out or thrown, before sunrise or after sunset, under the penalty, for the person in charge of a vessel contravening, or any other person or persons violating this Regulation, hereinafter provided.

Condemned ballast wharves

50. The Harbour Master is empowered to condemn any ballast wharf or wharves not sufficiently protected to prevent ballast falling into the harbour; and to prohibit the use of same; and said wharf or wharves shall not be further used until so protected to his satisfaction.

Refuse or rubbish

51. No timber, saw-logs, log-ends, piles, edgings, slabs, rinds, bark, chips, sawdust, mill refuse, fish refuse, or refuse or rubbish of any description, kind or nature, not governed by Section 48 above, shall be unladen, discharged, deposited, laid, cast or emptied out or thrown, or allowed to go

Canada Shipping Act—continued

adrift from any vessel or in any other manner, or by any person from any wharf or from any part of the beach or shore, into any part of the harbour, or upon the beach or shore thereof below highwater mark, under the penalty for violation hereof hereinafter provided, to be paid by the person having the charge of a vessel or the works from which any such matter as aforesaid shall have been so discharged, unladen, deposited, laid, cast or emptied out, thrown or allowed to go adrift, or by any other person or persons violating this Regulation.

Pollution of waters with oil, etc.

52. No oil, oil or acid polluted water, oil sludge, or any other form of oil alone or in combination with any other substance; or any inflammable or dangerous substance; shall be allowed to drain, or be pumped, thrown or discharged in any manner from any vessel, oil tank, oil refinery, or other receptacle, into the waters of any port or harbour in Canada, and any person in charge of or owning any vessel, manufactory, works, tanks, or other premises, violating the provisions of this Regulation shall be liable to a penalty for violation hereof hereinafter provided.

Pilot responsible for illegal deposit of rubbish

53. Any pilot who sanctions or allows any of the matters or materials, mentioned in sections 48, 51, and 52 above, to be unladen, discharged, deposited, laid, cast or emptied out, or thrown or allowed to go adrift from any vessel under his command or direction in contravention to the present regulations, or who, knowing the same to have been done, does not forthwith report the same to the Harbour Master upon his first arrival in the port or harbour, commits an offence and shall be liable to the penalty for violation hereof hereinafter provided.

Rubbish not to be deposited on the ice

54. None of the materials or matters mentioned in Sections 48, 51 and 52 above shall be deposited on the ice within the limits of any harbour.

EXPLOSIVE OR DANGEROUS CARGO*Explosives*

55. No explosive material of any kind or nature shall be landed in any harbour by any vessel (the vessels belonging to or employed by His Majesty and the Government of the Dominion of Canada excepted) except with the knowledge and approval in writing of the Harbour Master, and in such quantities and at such places as shall be determined and mentioned in writing by him, under the penalty for violation hereof hereinafter provided, to be paid by the person in charge of the vessel from which explosive materials shall have been landed in contravention of this Regulation.

56. No explosives, highly inflammable or dangerous material or substance of any kind or nature intended to be shipped by any person on board any vessel, in any harbour, shall be brought to or placed upon any wharf or pier, or in any place within the limits of said harbour, without the written consent having been first obtained to that effect from the Harbour Master, by the person or persons intending to ship the same, under the penalty for violation hereof hereinafter provided, to be paid by any person or persons violating this Regulation.

Canada Shipping Act—continued

57. (1) No explosive, highly inflammable or dangerous material or substance of any kind or nature shall be taken or received on board any vessel, in any harbour (the vessels belonging to or employed by His Majesty and the Government of the Dominion of Canada excepted) without the written authorization of the Harbour Master to that effect.

Conditions for loading and clearance of explosives

(2) No said material or substance of any kind or nature, so authorized to be taken or received on board any such vessel (vessels belonging to or employed by His Majesty and the Government of the Dominion of Canada excepted) shall be so taken or received on board such vessel until it shall have been cleared at the Customs House and ready for sea, except with the written consent of the Harbour Master, in which case as soon as such explosive material is on board, the vessel shall be removed to the stream (wind and weather permitting) under the penalty for violation hereof hereinafter provided, to be paid by the master or person in charge of the vessel violating this Regulation.

Harbour Master to direct where explosives may be loaded or unloaded

(3) The Harbour Master shall have power to direct where any vessel loaded in whole or in part with explosives or inflammable or dangerous goods shall anchor or be moored, and to order the removal of such vessel from any part of the port or harbour to any other part of the port or harbour; and shall also have power to direct where vessels may load or unload such explosive, inflammable or dangerous goods, and the precautions to be observed in and during such loading or unloading; and the person in charge of any vessel contravening the directions of the Harbour Master in these respects shall be liable to the penalty for violation hereof hereinafter provided.

Harbour Master shall decide as to what cargo shall be classed as "explosives"

(4) The Harbour Master shall have the power to decide whether any particular goods are explosive, highly inflammable or dangerous, subject to appeal to the Minister, by any person interested therein and dissatisfied with the Harbour Master's decision; but the Harbour Master shall be governed by the terms of subsection 2 (f) of section one of the Special Regulations hereinafter set out governing the loading and handling of explosives, in deciding what goods are to be classed as explosives.

Penalty

Continuing penalty

58. Disobedience of any lawful orders or directions of the Harbour Master, or the Deputy Harbour Master, made or issued under any of the clauses of the authorized general or special harbour Regulations, or any violation or contravention of any authorized harbour regulation, shall subject the offender to the imposition of a fine not exceeding in any case one thousand dollars (\$1,000). If any such violation continues for more than twenty-four hours, every additional twenty-four hours during which it may continue, shall be deemed to be an additional offence and subject to an additional penalty.

Canada Shipping Act—continued**PART II—SPECIAL REGULATIONS****REGULATIONS FOR THE LOADING AND HANDLING OF EXPLOSIVES IN HARBOURS
IN CANADA**

1. These Regulations shall apply to all public harbours to which the provisions of Part X of the Canada Shipping Act apply.

2. In these regulations, unless the context otherwise requires,

- (a) "port warden" means the port warden or deputy port warden;
- (b) "Harbour Master" means the harbour master or deputy harbour master;
- (c) "ship" includes every description of vessel used in navigation not propelled by oars;
- (d) "vessel" includes any ship or boat or any other description of vessel used or designed to be used in navigation;
- (e) "ship's ammunition" means any gun powder, shells, rockets or other explosives necessary for the vessel's safety and defence;
- (f) "explosives" means all substances included in the Appendix of these regulations; but does not include ship's ammunition;
- (g) "loading berth" means the area set aside for the purpose of loading or discharging explosives in any harbour.

3. The Harbour Master shall designate a suitable area in the harbour to be used as a loading berth.

4. The following regulations shall be observed in the employment of every vessel carrying explosives:—

- (a) The space or spaces in any vessel in which it is intended to carry explosives must, before loading is commenced, be properly prepared as a magazine, in which all iron must be covered with wood or other material or substance, provided the same is not liable, through coming in contact with water or otherwise, to cause spontaneous combustion or ignition;
- (b) In the stowing of explosives every precaution shall be taken by means of partitions or otherwise to protect the same from contact with any article or substance which is liable to cause fire or an explosion;
- (c) No explosives shall be carried on any vessel unless they are completely covered with tarpaulins or other suitable material to prevent the communication of fire;
- (d) No vessel carrying explosives shall have any matches on board other than safety matches for use on the vessel, and such safety matches shall be kept in a safe place apart from the explosives;
- (e) No baggage shall be carried in the hold of any vessel containing explosives;
- (f) All vessels carrying explosives shall be fitted with lightning conductors at the main mast and an additional conductor, if especially ordered by the port warden. The foregoing provision shall not apply to barges or bateaux not propelled by steam or other motive power;
- (g) The hatches of any vessel having explosives on board shall be kept closed except during the loading or unloading of the same, and when so closed shall be covered with tarpaulins securely battened;

Canada Shipping Act—continued

- (h) All electric light wires must be disconnected in the holds containing explosives before the loading of explosives shall be commenced, and the same shall remain disconnected until such explosives are unloaded from such hold or holds;
 - (i) It shall be the duty of port wardens to examine vessels which carry explosives and see that these regulations are obeyed. In the absence of a port warden it shall be the duty of the harbour master to examine vessels which carry explosives.
5. The following regulations shall be observed in connection with the loading, unloading and handling of explosives in any harbour in Canada:—
- (a) No explosives shall be loaded from or discharged at any freight shed, quay, jetty, wharf or other place within a harbour other than the loading berth;
 - (b) No vessel having any explosives on board shall tie up or lie alongside of any quay, wharf, jetty, or other place, other than at the loading berth in any harbour in Canada, and in so far as is practicable she shall remain at such loading berth only during the time necessary for the actual loading or unloading of explosives;
 - (c) No explosives shall be loaded on, discharged from or handled upon any vessel, except under the supervision of a competent officer of such vessel specially charged with such work;
 - (d) No explosives shall be loaded, unloaded or handled except between sunrise and sunset;
 - (e) No person engaged in the loading, unloading or handling of explosives shall wear boots or shoes with iron of any kind exposed;
 - (f) No person engaged in loading, unloading or handling explosives shall carry about his person any fuses, matches or other combustibles, and he shall not, while so engaged, smoke any tobacco or other substances;
 - (g) Spark arresters shall be placed on the top of funnels and smokestacks while explosives are being loaded or unloaded, or while the ship's hatches are uncovered;
 - (h) No person under the influence of liquor shall be allowed on board any vessel during the time that explosives are being loaded or unloaded, unless such person is under restraint;
 - (i) Any explosive which may escape from the package in which it is contained, or which has been spilled, shall immediately be rendered harmless;
 - (j) No fires or lights shall be allowed at or near the place, or on any vessel, where the explosives are being loaded, unloaded or handled, other than those which may be authorized by the harbour master;
 - (k) A pudding fender or cushion properly stuffed with oakum covered with leather or canvas, shall be used for shipping or landing every explosive on, either in the hold of any vessel or upon any warehouse, wharf or other place;
 - (l) Whenever any explosives are to be loaded on or discharged from any vessel, the hold so far as may be practicable, and the gangways and decks of such vessel shall be carefully cleaned and swept;
 - (m) While the loading, unloading or conveyance of explosives is going on, all persons engaged in such loading, unloading or conveyance shall observe all due precautions for the prevention of accidents by fire or explosion and for preventing unauthorized persons

Canada Shipping Act—continued

having access to the explosives so being loaded, unloaded or conveyed, and shall abstain from any act whatsoever which tends to cause fire or explosions, and is not reasonably necessary for the purpose of the loading, unloading or conveyance of such explosives, and for preventing any other person from committing any such act, and any such other person who, after being warned, commits any such act, shall be deemed to commit a breach of this regulation;

- (n) It shall be the duty of the owner and master to see that the provisions of these regulations are observed.

6. The following regulations shall be observed by vessels carrying explosives navigating within harbours:—

- (a) Every person having charge of or acting as master or mate of any boat used in carrying explosives to and from the shore or for transshipment, shall obtain a licence from the harbour master, which shall only be obtained on written application setting out age, nationality and occupation of the applicant for the three years preceding the application. Every such application must be accompanied by a certificate from the applicant's present or last employer as to character, together with a certificate as to sobriety, character, and steadiness from a clergyman or justice of the peace. Every such licence shall expire at the close of navigation each year and may be cancelled or suspended for cause by the harbour master at any time. Every person in charge of any boat containing explosives shall produce his licence whenever required to do so by the harbour master or any police officer;
- (b) Every boat having on board explosives shall have a sufficient crew to manoeuvre and navigate it and at least two members of the crew shall remain on such boat until the explosives are discharged;
- (c) No passenger shall be carried on any vessel wholly or partly laden with explosives;
- (d) Every vessel having on board any explosives shall by day fly a red flag of not less than four feet square, and by night a red light at its foremast head;
- (e) No vessel having on board explosives shall navigate in any harbour between sunset and sunrise;
- (f) No quantity of explosives exceeding 250 tons shall be loaded into, discharged from or carried in any boat at any time;
- (g) No other cargo of any kind shall be carried in any boat carrying explosives;
- (h) No boat used in carrying explosives shall have motor, steam or other power for propulsion on board, but shall at all times while having explosives on board, be in charge of a tug or tugs;
- (i) Every vessel having explosives on board and every vehicle containing explosives shall be constantly watched by some competent person appointed by the harbour master or by the master of the vessel, and every person so appointed to watch any such vessel shall keep a good lookout at the bridge or deck.

7. Every person shall be guilty of an offence punishable under Part XV of the Criminal Code who, in whatever capacity he is acting, fails or neglects to comply with, or in any way contravenes any of these regulations, or is the owner, master, pilot or person in charge of any vessel, in the conduct or management of which such offence is committed.

Canada Shipping Act—continued

8. Any person committing an offence against these regulations shall be liable to a penalty not exceeding \$100, or in the case of a continuing offence to a further penalty not exceeding \$10 for every 12 hours during which such offence continues.

APPENDIX

1. The stowage of the various kinds of explosives in the holds of the vessel should be in accordance with the requirements laid down in the accompanying tables I, II and III.

2. Holds containing coal: No explosive should be carried in a hold containing coal nor in a 'tween decks over a hold containing coal except safety cartridges, safety fuse caps, percussion and fog signals.

TABLE I
Stowage of Explosives
To be stowed in Hold "A"

Group	Division	Stores	Remarks as to separate magazines	General	
		<i>Explosives</i>			
II.	IA.	Ballistite. Cannon Cartridges filled with ballistite cordite or sonite except Q.F. cartridges, but including all cordite or sonite charges for Q.F., cartridges, Charges, impulse, torpedo, cordite. Cordite in bulk. Cordite cylinders without igniters. Cordite cylinders fitted with igniters.	In one magazine.	A cool position is to be selected for all magazines.	
III.	IIIA.	Cartridges, impulse, Torpedo (Cordite), Q.F. cartridges, fitted with electric primers or adapters and filled with cordite. Magazine for all nitre compounds (except wet guncotton, picric acid and trinitrotoluene) and chlorate mixtures must not be less than four feet from the ship's side.			
		<i>Explosives</i>	Remarks		
I.	LL.	Blasting gelatine. Composition, exploding. Dynamite. Exploders, filled for lyddite shell. Gelignite. Picric powder. Tonite. Sonite. Dry guncotton.	In one magazine.		
		<i>Explosives</i>			
III.	IIA.	Filled cordite Q.F. Cartridges containing a cap or percussion primer.	In a magazine by themselves.		
II.	LB.	Cartridges, signal, "Very's Rockets," (except war and life saving). Service lights of sorts, stars, incendiary		In a magazine by themselves.	In one magazine.

Canada Shipping Act—continued

Group	Division	Stores	Remarks as to separate magazines	General
II.	IA.	Caps, percussion..... Cartridges, Small arm..... “ machine gun..... “ aiming tube..... (which are safety cartridges.) Cases, Cartridges, Q.F. capped and empty..... Composition, priming fuse, safety.... Fuses, time..... “ percussion..... “ time and percussion..... “ electric..... Igniters, torpedo..... Match, slow..... Portfires..... Primers, light, G.S., and portfires, life saving..... Primers, electric..... “ percussion..... “ shrapnel shell..... “ vent..... Tubes, electric..... “ friction..... “ percussion..... Magazine for all nitro compounds (except wet guncotton, picric acid, and trinitrotoluene) and chlorate mixtures must not be less than four feet from the ship's side.	In one magazine.	
II.	II.	Mines and countermines containing wet guncotton only.....	In a magazine by themselves.	
II.	IIIA.	Gunpowder wetted.....		
		Grenades, hand, filled, but without detonators. Rockets, war and life-saving.....	In one magazine.	
	IIIA. and IIIB.	Shell, filled, fused or not fused.....		
III.	I.	Guncotton—wet (except in mines)...	In a magazine by itself.	
		<i>Explosives.</i>		
III.	IIB.	Filled Q.F. cartridges (powder) containing a cap or percussion primer.	In a magazine by themselves.	
III.	IIIB.	Cartridges, impulse torpedo (powder) Q.F. cartridges fitted with electric primers or adapters and filled with gunpowder.....	In one magazine, may also be stowed in same magazine as Group I, Div. IB.	
		<i>Explosives</i>		
I.	IB.	Bags, primer, filled.....		
		Cannon cartridges, filled with gunpowder, except Q.F. cartridges, but including all gunpowder charges for Q.F. cartridges.....	In one magazine G. III.	
		Fuse, instantaneous.....	D.IIIB, may also be stowed in same magazine.	
		Gunpowder, except that which has been wetted.....		
		Igniters, powder.....		
		Puffs, powder.....		
		Quick match.....		
I.	LLL.	Picric acid.....	In a magazine by themselves.	
		Trinitrotoluene.....		

Canada Shipping Act—continued

TABLE II

To be stowed in Hold "B"

Group	Division	Stores	Remarks as to separate magazines	General
II.	IV.	<i>Explosives</i> Detonators . .	In a magazine by themselves.	These must be stowed in a separate hold "B" in which no other explosives are placed except safety cartridges, caps, percussion and fog signals.

TABLE III

To be stowed in Hold "C"

		<i>Fireworks</i>	To be stowed in a separate hold by themselves, away from all other explosives, except safety cartridges, safety fuse, caps, percussion and fog signals.
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NOTE.—Private explosives are to be stowed in separate magazines from Government explosives.

Specification for Portable Magazines for any Quantities up to Two Tons

(Size in accordance with the dimensions of the packages to go into it.)

3. A frame is to be made of 2-inch by 3-inch quartering floored and boarded up with 1½-inch boarding. Lid to be fitted with cleats on the inside to keep it in its place when shipped, and fastened with hasp, staples and a strong hanging lock of brass or galvanized iron.

REGULATIONS FOR THE GOVERNMENT OF CERTAIN PUBLIC HARBOURS IN THE PROVINCE OF NOVA SCOTIA

BRIDGEWATER

Channel to be left

It shall be the duty of the Harbour Master at the port of Bridgewater to see that those persons engaged in lumbering and rafting logs have their buoys, piers and booms so placed and arranged as to leave at all times a clear passage, in main channel, of not less than two hundred feet for ships and vessels to navigate; and any buoys, piers and booms that are not so placed and arranged shall be removed by the person or persons who placed or caused the same to be placed there, or by the representatives in ownership or possession of the property, on account of which such buoys, piers or

Canada Shipping Act—continued

booms were so placed under a penalty of fifty dollars for any violation of this regulation, and, in case of a continuing violation, a further penalty of ten dollars for every twelve hours during which said violation continues, to be paid by any of the above persons so violating this regulation.

LITTLE GLACE BAY*Anchors and yards*

At the port of Little Glace Bay, vessels immediately on arriving in the harbour shall have both anchors hanging at the hawser-pipe and shall have the yards cockbilled.

LUNENBURG*Anchorage*

1. No vessel within the limits of the port of Lunenburg shall be anchored so as to swing at her anchors nearer to any wharf than one hundred and fifty yards, excepting for the purpose of coming to or leaving a wharf, or in removing from one wharf to another, and then not to remain any longer than necessary for such purpose, unless from stress of weather or other unavoidable cause, to be judged of by the Harbour Master.

Laying up on west side and on east side

2. All vessels anchored for the purpose of being laid up on the western side of the harbour of the port of Lunenburg must be so anchored as not to swing to the eastward of an imaginary line from the point of Selig's Head to the western corner of Lindsay's wharf, and all vessels anchored for the purpose of being laid up on the eastern side of the harbour must be so anchored as not to swing to the westward of an imaginary line from the willow trees on Battery Point to the eastern corner of Finck's wharf.

REGULATIONS FOR NAVIGATING THE LOWER DETROIT RIVER*Definition*

The Lower Detroit River for the purposes of these Regulations consists of the public harbour of Amherstburg, the limits of which are:

Limits

All the waters of Detroit River and of Lake Erie on the Canadian side of the International boundary line south of the parallel of 42° 17' north latitude and west of the meridian of 83° 5' west longitude.

Speed

Speed under these rules shall in all cases be speed over the bottom.

These rules shall replace all rules and regulations heretofore published for navigating the Lower Detroit River.

REGULATIONS

1. No vessel of 100 gross tons or over shall navigate the Livingstone Channel at a rate of speed greater than twelve statute miles per hour

Canada Shipping Act—continued

between its junction with the Amherstburg Channel at Ballards Reef and the Bar Point lighted bell buoy; nor the Amherstburg Channel at a rate of speed greater than twelve statute miles per hour between the south end of Bois Blanc Island and the north gas buoys at Ballards Reef, and where the width of this channel is restricted by improvements in progress, through such restricted width of channel the speed shall not exceed eight statute miles per hour.

2. Downbound freight vessels shall pass through the Livingstone Channel as far as the Detroit River Light. Deep laden vessels shall then enter Lake Erie through the 1,200 foot channel passing east of the light-house, while light draft vessels and moderately laden vessels may enter Lake Erie through the old downward channel west of the light.

All upbound vessels shall enter the Detroit River via the channel east of the Detroit River Lighthouse and pass through the Amherstburg Channel.

Vessels under 100 gross tons, and vessels making local stops along these routes, are exempt from this rule.

3. Passenger vessels may use the Amherstburg Channel downbound, but should they pass down through the Livingstone Channel they shall be subject to the rules governing that channel.

4. All upbound light-draft vessels and all passenger vessels using the Amherstburg Channel shall pass through the auxiliary channel to the eastward of the improved channel at Ballards Reef. This auxiliary channel is 280 feet wide and 14.5 feet deep at low water datum.

5. No vessel shall pass another vessel bound in the same direction in that portion of Livingstone Channel between its junction with Amherstburg Channel at Ballards Reef and Bar Point lighted bell buoy, nor at any other portion of either channel where the width of the channel is restricted by improvements in progress. Between any two downbound vessels entering or navigating that portion of Livingstone Channel between its junction with the Amherstburg Channel at Ballards Reef and Bar Point lighted bell buoy there shall be a time interval of not less than five minutes.

Tugs without tows and vessels under 100 gross tons are exempt from this rule.

6. Any vessel approaching a tug with a tow moving in the same direction may pass such tow by giving a signal indicating upon which side the vessel desires to pass, and it shall be the duty of the pilot of the tug to sheer clear of the side of the channel indicated and give the passing vessel all possible room.

7. No vessel shall anchor within the limits of either channel except in distress or under stress of weather. Any vessel so anchored shall be moved as quickly as possible to such anchorage as will leave the channel clear for the passage of vessels.

8. No vessel shall tow another through any of the improved channels unless such vessel moves the tow at least five miles per hour over the bottom; and no vessel of ten gross tons or over shall navigate the improved channels under sail power alone.

9. All vessels passing dredges, drill scows, derrick scows, or other stationary plant engaged on improvements to the channels are required to slacken their speed when given a signal by three distinct blasts of the steam whistle.

Canada Shipping Act—continued

10. No vessel shall pass or attempt to pass another vessel or vessels moving in the same or opposite directions at any place in Lower Detroit River, in such a position that more than two vessels will be abreast when passing.

11. Three long blasts of the steam whistle, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given is proceeding at too high a rate of speed, and such vessel must immediately moderate her speed accordingly.

12. Four long blasts of the steam whistle, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given must stop until further orders from the patrolling vessel.

13. One long blast followed by four short blasts, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given may proceed on her course.

14. A vessel aground in or near a channel, or a vessel which from any accident is not under command, shall show from sunset to sunrise, at a height of not less than twenty feet nor more than forty feet above the hull, two lights in a vertical line one above the other and not less than six feet apart and so fixed as to be visible to both up and down bound vessels. The upper of these lights shall be red. If the nature of the accident is such that the channel is closed, the lower of these lights shall also be red. But if the nature of the accident is such that vessels can pass in safety, the lower of these lights shall be white.

Such vessels shall not show the lights required for a vessel at anchor.

Such vessel shall, if the accident has closed the channel, sound a signal of several short and rapid blasts of the steam whistle to any approaching vessel, whereupon the approaching vessel shall stop and repeat this signal to any vessel coming up astern of her.

But if the accident has not rendered passing unsafe, such vessel shall sound a signal of three distinct blasts to any approaching vessel, whereupon the approaching vessel shall answer with the same signal of three distinct blasts and shall reduce her speed and pass with caution.

Such vessel shall in no case give or answer a passing signal without first giving several short and rapid blasts of the steam whistle.

It shall be the duty of the master of the first vessel passing such vessel to report the place and nature of the accident to the next marine reporting station or patrol boat.

15. Whenever vessels collect in any part of the river by reason of fog, smoke, ice, or the obstruction of any of the channels, their anchorage and movements in such channels shall be under the direction and control of the officer in whose jurisdiction such vessels have collected. Regular scheduled boats carrying passengers or mail may be advanced in order, and any vessel not ready to move when directed shall lose her position. The masters of all vessels are required to yield prompt obedience to the orders of the proper authorities.

16. While in the performance of their duties, all orders of the officers in charge of traffic on the lower Detroit River as above indicated shall be obeyed. Any violation of such orders and any violation of the above rules and regulations shall subject the offender to the penalties made and provided.

Canada Shipping Act—continued

Any such violation shall be immediately reported by the officer noting the same to his immediate superior for transmission in the proper way. The report should state on which side of the international boundary the violation occurred.

With a view to facilitating traffic and to avoid a dispute as to jurisdiction of traffic within the limits of the Lower Detroit River, boats shall carry out the orders of the representative of either Government in the absence of the representative of the other, and the two officers in charge shall make such local arrangements as will avoid any possibility of conflict of authority.

17. In the case of any vessel, boat, water craft, raft, or other similar obstruction sinking or grounding or being unnecessarily delayed in any navigable waters in such a manner as to stop, seriously interfere with, or specially endanger navigation in the opinion of either or both of the officers in charge of navigation in the Lower Detroit River, these officers shall, in addition to any authority otherwise granted by their respective Governments, have full power to stop all vessels and direct their anchorage, clear the channel, designate the order in which all vessels shall proceed after the channel is opened, and shall do all other things necessary and proper to expedite the passage of vessels.

18. In all cases where the foregoing rules are not applicable the attention of masters is directed to the Pilot Rules for the Great Lakes and their connecting and tributary waters.

Complaints arising under these rules are to be addressed to the United States Engineer in Charge, Room 605, Federal Building, Detroit, Michigan, or to the Harbour Master at Amherstburg, Ontario.

REGULATIONS FOR THE GOVERNMENT OF CERTAIN PUBLIC HARBOURS IN THE
PROVINCE OF ONTARIO

SARNIA

Navigation in St. Clair River

All through-bound vessels passing through the St. Clair River in the vicinity of the St. Clair middle grounds, and of Stag Island, in the harbour of Sarnia, shall keep to the right, that is to say, all up-bound vessels shall pass through the eastern channel, and all down-bound vessels shall pass through the western channel; under a penalty of twenty dollars for any violation of this regulation, to be paid by the person in charge of the vessel contravening. (This rule shall apply to throughbound vessels only, and not to vessels running between local points on the river, which vessels may take either channel, conforming to the Rules of the Road for the Great Lakes.)

FORT WILLIAM

1. Vessels exceeding 100 tons gross are prohibited from steaming in Fort William Harbour at a faster rate of speed than four miles an hour.

2. Steam vessels not exceeding 200 tons gross may turn in any part of the Kaministiquia river, McKellar channel or the Mission channel, under their own power, excepting in the immediate vicinity of any bridge crossing said river or channels.

Canada Shipping Act—continued

3. Steam vessels exceeding 200 tons gross are prohibited from turning in the local harbour, excepting at the turning basins constructed for that purpose at West Fort above the C.N.R. railway bridge, at the confluence of the Kaministikwia river with Mission channel, at the confluence of the Kaministikwia river with McKellar channel; and at the C.N.R. turning basin near the mouth of Mission channel; provided however, that steam vessels exceeding 200 tons gross, but not exceeding 330 feet in length, may turn in that section of the Kaministikwia river lying between the bend above the C.P.R. elevator "D", and the westerly limit of the C.N.R. rail dock and in that section of said river lying between C.P.R. slip No. 1 and elevator "C" but the turning of such vessels in the said sections of this river shall not take place without the use of a tug, unless sanctioned by the harbour master.

PARRY SOUND

1. No person engaged in towing logs, booms or other descriptions of timber in the harbour of *Parry Sound* shall be allowed to use what is known as South channel entrance without having such logs, booms or other timbers properly rafted in cribs, not more than thirty-two feet in width, not more than one hundred feet in length; and no tug shall at any time be allowed to take more than five of such cribs into the Seven-mile Narrows or into the Two-mile Narrows of the said South channel, under a penalty of twenty dollars for any violation of this regulation, to be paid by the person in charge of said vessel.

2. All persons towing logs, booms or other timber in the south channel of *Parry Sound* shall take due care to keep the said Seven-mile Narrows free from obstructions at such hours of the day as the mail or regular passenger steamers are expected, under a penalty of twenty dollars for any violation of this regulation.

REGULATIONS FOR THE GOVERNMENT OF CERTAIN PUBLIC HARBOURS IN THE PROVINCE OF BRITISH COLUMBIA**VICTORIA AND ESQUIMALT***Anchorage*

1. No part of the harbour of Victoria situated between the Railway Bridge and the shores of James Bay shall be deemed to be an anchorage for vessels, and vessels anchoring in this part of the harbour may do so only as a temporary expedient, and the Harbour Master is authorized to cause the immediate removal, at his discretion, of any vessel so anchoring. This regulation does not apply to such small vessels and yachts as may be permitted by the Harbour Master to moor in the extreme eastern part of James Bay. The penalty incurred by the violation of this regulation is a fine of twenty dollars.

Logs

2. The Harbour Master shall have authority to regulate the quantity of logs which a person may bring into the harbour of Victoria at one time and store therein at one time, under a penalty upon the person in charge of any logs entered, or of any tow-boat bringing them, in contravention of

Canada Shipping Act—continued

any direction given hereunder by the Harbour Master, of twenty dollars for any violation of same and, in case of a continuing violation, a further penalty of ten dollars for every twelve hours during which said violation continues.

Length of boom

3. No boom of logs towed into the harbour shall exceed six hundred feet in length, under a penalty of fifty dollars.

Length tow line

4. No tow-boats entering or leaving Victoria Harbour, towing any vessel, shall use a tow line exceeding 100 feet in length from the stern of the tow boat to the prow of the vessel in tow, under penalty of twenty dollars, to be paid by the person in charge of such vessel contravening this regulation.

Channels to be maintained

5. A clear channel for navigation shall at all times be maintained in the harbour under a penalty of twenty dollars for any violation of this rule and, in case of a continuing violation, a further penalty of ten dollars for every twelve hours during which said violation continues, to be paid by the person in charge of any vessel so contravening.

Time limit for remaining in harbour

6. No vessel shall be allowed to remain at anchor or tied up within the limits of the harbour for a period exceeding three months, without a special permission in writing from the Harbour Master, under a penalty of fifty dollars for a violation of this regulation, and a further penalty, in case of a continuing violation, of ten dollars for every twelve hours during which such violation continues, to be paid by the person in charge of such vessel contravening this regulation.

7. Motor boats are prohibited from navigating the waters of Victoria Arm above Point Ellice bridge at a faster rate of speed than six miles an hour, under a penalty of \$20 for each violation.

Laying up, how moored

8. Vessels laying up in Thetis Cove and Plumper Bay and the northern part of Esquimalt Harbour shall be moored with two bower-anchors, as directed by the Harbour Master, under a penalty of fifty dollars for the violation of this regulation, to be paid by the person in charge of any vessel not conforming to same.

Anchorage, danger zone—Penalty

9. For the purpose of allowing a clear space to practise the heavy guns established on Rodd Hill and His Majesty's dockyard at the entrance of Esquimalt Harbour, vessels arriving in Royal Roads between the 15th May and 15th September in each year must anchor to the westward of a line drawn from Duntze Head to Race Rocks lighthouse, and not less than one nautical mile distant from Duntze Head. Vessels anchored to the eastward of this limit will be given twenty-four hours' notice to move out of the danger zone. The person in charge of any vessel neglecting or refusing

Canada Shipping Act—continued

to move out of said zone within said period of time shall be liable to a penalty of one hundred dollars and, in case of a continuing neglect or refusal, to a further penalty of ten dollars for every twelve hours during which said neglect or refusal continues.

10. The portion of *Esquimalt Harbour* known as Constance Cove, and situated eastward of a line drawn between Duntze Head and Ashe Head is hereby designated the Man-of-War Anchorage, and such portion of the harbour shall, until otherwise ordered, be set apart for the use of His Majesty's ships, it being understood that access to the coves shall at all times be allowed to vessels desiring to make use of the graving dock situated there, and to vessels requiring to proceed to the different wharves situated on the shore of Constance Cove.

Speed

11. Steam vessels using the ports of Victoria and Esquimalt shall be required to go slow and, if necessary, stop their engines altogether when nearing places where submarine works are being operated. Any neglect of this precaution will render the person in charge of the vessel contravening liable to a fine of fifty dollars for each and every offence.

12. Every hawser or rope by which a vessel is made fast to a wharf or to shore must be defended by at least one metal rat-guard of an approved standard size.

13. Vessels lying at any wharf or pier within the limits of the Victoria and Esquimalt Harbours shall not have an anchor out unless with the consent of the Harbour Master and subject to his direction.

28. Regulations for the protection against accident of workers employed in loading or unloading ships

P.C. 3014

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 8th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 467 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The Regulations for the Protection against Accident of Workers employed in Loading or Unloading Ships, established by Order in Council P.C. 3120 of 14th December 1938, as amended, are hereby revoked; and

2. The attached "Regulations for the Protection against Accident of Workers employed in Loading or Unloading Ships" are hereby made and established in substitution for the regulations hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

Canada Shipping Act—continued

REGULATIONS FOR THE PROTECTION AGAINST ACCIDENT
OF WORKERS EMPLOYED IN LOADING OR UNLOADING SHIPS

PART I

1. In these Regulations, unless the context otherwise requires:—

“dock” means any dock, wharf, quay, or similar place at which the processes are carried on;

“hatch” means an opening in a deck, used for the purpose of the processes or for trimming, or for ventilation;

“hatchway” means the whole space within the square of the hatches, from the top deck to the bottom of the hold;

“lifting machinery” means cranes, winches, hoists, derrick booms, derrick and mast bands, goose necks, eyebolts, and all other permanent attachments to the derricks, masts and decks, used in hoisting or lowering in connection with the processes;

“Officer in charge” means the person, other than the master, in charge of a ship for the time being;

“prescribed” means prescribed by the Minister;

“processes” means all or any part of the work performed on shore or on board ship of loading, unloading, moving or handling goods in, on or at any port, harbour, dock, or similar place at which such work is carried on, or of coaling a ship at any such place;

“pulley block” means pulley block, gin and similar gear, other than a crane block specially constructed for use with a crane to which it is permanently attached;

“worker” means any person employed in the processes;

“working place” means a place where the processes are carried on, whether on shore or on board a ship.

2. (1) Except as provided in paragraph (c) of regulation 4 it shall be the duty of the person having the general management and control of a dock to comply with Part II of these Regulations, provided that if any other person has the exclusive right to occupation of any part of the dock, and has the general management and control of such part, the duty in respect of that part shall devolve upon that other person.

(2) Except as provided in paragraph 3 of regulation 13 it shall be the duty of the owner, master, or officer in charge of a ship to comply with Part III of these Regulations.

(3) It shall be the duty of the owner of lifting machinery, gear or apparatus used in the processes, and, in the case of such lifting machinery, gear or apparatus carried on board a ship, not being a ship registered in Canada, it shall also be the duty of the master of such ship to comply with Part IV of these Regulations.

(4) It shall be the duty of every person who by himself, his agents, or workmen carries on the processes, and of all agents, workmen and persons employed by him in the processes, to comply with Part V of these Regulations, provided that, where the processes are carried on by a stevedore or other person other than the owner of the ship, it shall be the duty of the owner, master or officer in charge of the ship to comply with regulation 41 so far as it concerns—

(a) any hatch not taken over by the said stevedore or other person for the purpose of the processes, and

Canada Shipping Act—continued

- (b) any hatch which, after having been taken over by the said stevedore or other person for the purpose of the processes,
 - (i) has been reported by written notice, in the prescribed form, to the owner, master or officer in charge of the ship, by or on behalf of the said stevedore or other person, as being a hatch at which the processes have been completed, or completed for the time being, and
 - (ii) either has been left by the said stevedore or other person fenced or covered as required by regulation 41, or has been taken into use by or on behalf of the owner of the ship, and in either case has been so reported by such written notice as aforesaid.

It shall be the duty of the owner, master or officer in charge of the ship to give immediately a written acknowledgement, in the prescribed form, of such written notice as aforesaid.

(5) It shall be the duty of all persons, whether owners, occupiers, or workers, to comply with Part VI of these Regulations.

(6) Part VII of these Regulations shall be complied with by the persons on whom the duty is placed in that Part.

PART II

3. Every regular approach over a dock which workers have to use for going to or from a working place at which the processes are carried on, and every such working place on shore, shall be maintained with due regard to the safety of the workers. In particular, the following parts shall, as far as is practicable, having regard to the traffic and working, be securely fenced so that the height of the fence shall be in no place less than 2 feet 6 inches, and the fencing shall be maintained in good condition ready for use:—

- (a) all breaks, dangerous corners and other dangerous parts or edges of a dock,
- (b) both sides of such footways over bridges, caissons, and dock gates as are in general use by workers, and each side of the entrance at each end of such footway for a sufficient distance, not exceeding 5 yards.

4. Provision for the rescue from drowning of workers shall be made and maintained, and shall include:—

- (a) a supply of life-saving appliances, kept in readiness on the dock, which shall be reasonably adequate, having regard to all the circumstances;
- (b) means at or near the surface of the water, at reasonable intervals, for enabling a person immersed to support himself or escape from the water, which shall be reasonably adequate, having regard to all the circumstances;
- (c) in the case where a ship is loading from a boom, raft or crib, a suitable boat equipped with the necessary oars, a boat hook, and a serviceable lifebuoy having 90 feet of heaving line attached. Such boat shall be provided by the employer of the workers, and shall be kept in the water readily available as near as practicable to the place in which the workers are employed.

Canada Shipping Act—continued

5. All working places and any dangerous parts of the regular road or way over a dock forming the approach to any such place from the nearest highway, shall be efficiently lighted.

6. (1) A sufficient number of first-aid boxes or cupboards, of a standard to be prescribed, shall be provided at every dock, and, if more than one is provided, at reasonable distances from each other.

(2) A first-aid box or cupboard shall be marked plainly with a white cross on a red ground.

7. Nothing except appliances or requisites for first-aid shall be kept in a first-aid box or cupboard.

8. A first-aid box or cupboard shall be kept stocked and in good order and shall be placed under the charge of a responsible person who shall always be readily available during working hours. Such person shall, except at docks at which the total number of workers at any time does not exceed fifty, be a person trained in first-aid.

9. For the purpose of the removal of serious cases of accident arrangements shall be made, where practicable, in the case of every dock where the total number of workers exceeds twenty, for obtaining an ambulance from some place situated within a reasonable distance of the dock, and in telephonic communication therewith, unless there is provided at the dock an ambulance, suitable in the opinion of the Minister, and maintained in good condition.

10. Notices shall be exhibited in prominent positions at every dock, stating:—

(b) the position of the nearest telephone to be used in calling for an in charge can be found; and

(b) the position of the nearest telephone to be used in calling for an ambulance, or, if an ambulance be provided at the dock, the position of the ambulance;

and notices shall also be exhibited at each telephone intended to be used in calling for an ambulance stating the name and the telephone number of the person from whom the ambulance may be obtained.

10A. Copies or summaries of these Regulations shall be posted up in prominent positions at all docks.

PART III

11. (1) If a ship is lying at a dock for the purposes of the processes, there shall be safe means of access for the use of the workers at such times as they have to pass to or from the ship, unless the conditions are such that they would not be exposed to undue risk if no special appliance were provided. The said means of access shall be:—

(a) Where reasonably practicable, the ship's accommodation ladder, a gangway or a similar construction. Any such appliance shall be not less than 22 inches wide, properly secured, and fenced throughout on each side to a clear height of 2 feet 9 inches by means of upper and lower rails, taut ropes or chains, or by other equally safe means, except that in the case of the ship's accom-

Canada Shipping Act—continued

modation ladder such fencing shall be necessary on one side only, provided that the other side is properly protected by the ship's side. Such accommodation ladder, gangway or similar construction shall be constructed of suitable material, shall be in good condition and suitable for the purpose intended. It shall be so treated as to prevent workers slipping on it.

- (b) In other cases a ladder, which shall be of adequate strength and length, and properly secured to prevent slipping.

(2) Nothing in this regulation shall be held to apply to cargo stages or cargo gangways if other proper means of access is provided in conformity with these Regulations.

12. If a ship is alongside any other ship or vessel and the workers have to pass from one to the other, safe means of access shall be provided for their use unless the conditions are such that it is possible to pass from one to the other without undue risk without the aid of any special appliance. The means of access shall be provided by the ship which has the higher freeboard.

13. (1) If the depth from the level of the deck to the bottom of the hold exceeds 5 feet, there shall be maintained safe means of access from the deck to the hold in which work is being carried on.

(2) Except as hereinafter provided, such means of access shall be afforded by ladder, and by ladder cleats or cups on the coamings, and shall not be deemed to be safe—

- (a) unless the ladders between the lower decks are in the same line as the ladder from the top deck, if the same is practicable, having regard to the position of the lower hatch or hatches;
- (b) unless the ladders provide a foothold of a depth, including any space behind the ladder, of not less than $4\frac{1}{2}$ inches for a width of 10 inches, and a firm handhold;
- (c) unless the cleats or cups provided on coamings (i) provide a foothold of a depth, including any space behind the cleats or cups, of not less than $4\frac{1}{2}$ inches for a width of 10 inches, and a firm handhold; (ii) are so constructed as to prevent a man's foot slipping off the side; (iii) are placed vertically one above the other, and in the same line as the ladders to which they give access;
- (d) unless they are properly secured;
- (e) unless there is room to pass between a winch or other obstruction and the coamings at the place where the ladder leaves the deck;
- (f) if the ladder is recessed under the deck more than is reasonably necessary to keep the ladder clear of the hatchway;

provided that such access may be afforded—(i) where the provision of a ladder on a bulkhead or in a trunk hatchway can be shown to be reasonably impracticable, by cleats or cups complying with the requirements of paragraph (c), or (ii) by ladders or steps, separate from any hatchway or sloping from deck to deck, if such ladders or steps comply with the requirements of subparagraphs (b), (d) and (e) of this paragraph.

(3) When a ladder is to be used in the hold of a vessel which is not decked it shall be the duty of the employer of the workers to provide such ladder. It shall be equipped at the top with hooks or with means for firmly securing it.

Canada Shipping Act—continued

(4) Shaft tunnels shall be equipped with adequate handhold and foothold on each side.

14. When the processes are being carried on—

- (a) the working places in the holds and on the decks,
- (b) the means of access provided in pursuance of regulations 11 and 12, and
- (c) all parts of the ship to which workers may be required to proceed in the course of their employment,

shall be efficiently lighted, due regard being had to the safety of the ship and cargo, and of all workers, but so as not to interfere with the navigation of other vessels.

15. All fore and aft beams and thwartship beams used for hatch covering shall have suitable gear for lifting them on and off without it being necessary for any person to go upon them to adjust such gear.

16. All hatch coverings shall be kept plainly marked to indicate the deck and hatch to which they belong and their position therein, provided that this regulation shall not apply in cases where all the hatch coverings of a ship are interchangeable or, in respect of marking of position, where all hatch coverings of a hatch are interchangeable.

This regulation shall apply to fore and aft beams and to thwartship beams as it applies to hatch coverings.

17. All fore and aft beams and thwartship beams used for hatch covering and all hatch coverings shall be maintained in good condition.

18. Adequate hand grips shall be provided on all hatch coverings, having regard to their size and weight, unless the construction of the hatch or the hatch coverings is of a character rendering the provision of hand grips unnecessary.

19. Where the working space around a hatch is less than 2 feet wide, such provision shall be made as will enable workers to remove and replace in safety all fore and aft beams and thwartship beams used for hatch covering and all hatch coverings.

PART IV

20. (1) All lifting machinery shall have been tested and examined by a competent person in the manner set out in the Schedule to these Regulations before being taken into use.

(2) (a) All derricks and permanent attachments, including bridle chains, to the derrick, mast and deck, used in hoisting or lowering, shall be inspected by a competent person once in every twelve months, and be thoroughly examined by a competent person once at least in every four years.

(b) All other lifting machinery shall be thoroughly examined by a competent person once at least in every twelve months.

(3) For the purposes of paragraph (2) of this regulation and of paragraphs (3) and (4) of regulation 21, thorough examination means a visual examination, supplemented, if necessary, by other means such as a hammer test, carried out as carefully as the conditions permit, in order to arrive at a reliable conclusion as to the safety of the parts examined; if necessary for the purpose, parts of the machines or gear must be dismantled.

Canada Shipping Act—continued

21. (1) All chains, rings, hooks, shackles, swivels or pulley blocks used in hoisting or lowering shall have been tested and examined by a competent person in the manner set out in the Schedule to these Regulations before being taken into use.

(2) Subject to the provisions of paragraph (3) of this regulation all chains (other than bridle chains attached to derricks or masts), rings, hooks, shackles and swivels made of wrought iron used in hoisting or lowering shall be effectually annealed in the manner set out in the Schedule to these Regulations under the supervision of a competent person, and at the following intervals:—

- (i) half inch and smaller chains, rings, hooks, shackles and swivels in general use—once at least in every six months;
- (ii) all other chains, rings, hooks, shackles and swivels in general use—once at least in every twelve months,

provided that in the case of such gear used solely on cranes and other hoisting appliances worked by hand, twelve months shall be substituted for six months in paragraph (i), and two years for twelve months in paragraph (ii),

and provided also that where the Chairman of the Board of Steamship Inspection is of opinion that, owing to the size, design, material or infrequency of use of any such gear or class of such gear, the requirement of this regulation as to annealing is not necessary for the protection of workers, he may, by certificate in writing, (which he may in his discretion revoke) exempt such gear or class of gear from such requirement subject to such conditions as he thinks fit.

Where in this paragraph the term “in general use” is used it shall mean that the gear or apparatus is used on 52 occasions or more during twelve months.

(3) The following classes of special gear are exempted from the requirements of annealing, subject to the condition that such gear shall be thoroughly examined by a competent person once at least in every twelve months:—

- (i) Plate link chains;
- (ii) Pitched chains;
- (iii) Rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines;
- (iv) Hooks and swivels having screw-threaded parts, ball bearings or other case-hardened parts;
- (v) Bordeaux connections.

(4) Chains made of malleable cast iron, and chains, rings, hooks, shackles and swivels made of steel shall be thoroughly examined by a competent person once at least in every twelve months.

(5) All chains, other than bridle chains attached to derricks or masts, and all rings, hooks, shackles, swivels and pulley blocks shall be inspected by a competent person immediately before each occasion on which they are to be used in hoisting or lowering, unless they have been inspected within the preceding three months.

(6) All chains, rings, hooks, shackles or swivels used in hoisting or lowering which have been lengthened, altered or repaired by welding shall, before being again taken into use, be adequately tested and re-examined by a competent person in accordance with the provisions of paragraphs (4) and (5) of the Schedule to these Regulations.

Canada Shipping Act—continued

22. (1) No rope shall be used in hoisting or lowering unless—

- (i) it is of suitable quality and free from patent defect, and
- (ii) in the case of wire rope, it has been examined and tested by a competent person in the manner set out in the Schedule to these Regulations before being taken into use.

(2) Every wire rope in general use for hoisting or lowering shall be inspected by a competent person once at least in every three months, provided that after any wire has broken in such rope it shall be inspected once at least in every month.

(3) No wire rope shall be used in hoisting or lowering if, in any length of eight diameters the total number of visible broken wires exceeds 10 per cent of the total number of wires, or the rope shows signs of excessive wear, corrosion or other defect which, in the opinion of the person who inspects it, renders it unfit for use.

(4) A thimble or loop splice made in any wire rope shall have at least 3 tucks with a whole strand of the rope and 2 tucks with one-half of the wires cut out of each strand, the strands in all cases being tucked against the lay of the rope; provided that this regulation shall not operate to prevent the use of another form of splice which can be shown to be as efficient as that laid down in this regulation.

(5) Each wire rope used for hoisting or lowering shall be in one continuous piece.

23. The safety factors which should be adopted with respect to the manufacture of lifting machinery, chains, rings, hooks, shackles, or swivels, wire rope and fibre rope, are set out in the Schedule to these Regulations.

24. (1) There shall be kept a register in the prescribed form and giving the prescribed particulars in respect of—

- (a) the annual inspection and quadrennial thorough examination required under subparagraph (a) of paragraph (2) of regulation 20 of these Regulations,
- (b) the annual thorough examination required under subparagraph (b) of paragraph (2) of regulation 20 of these Regulations,
- (c) the annual thorough examination of special gear exempted from annealing under the provisions of paragraph (3) of regulation 21 of these Regulations, also the annual thorough examination of chains made of malleable cast iron, and of chains, rings, hooks, shackles and swivels made of steel, required under the provisions of paragraph (4) of regulation 21 of these Regulations, unless separate certificates in respect of such examination have been provided,
- (d) the annealing required under paragraph (2) of regulation 21 of these Regulations, unless separate certificates in respect of such annealing have been provided.

(2) Certificates in the prescribed form and containing the prescribed particulars in respect of—

- (a) the testing and examination required under paragraph (1) of regulation 20, paragraph (1) of regulation 21, paragraph (6) of regulation 21, and subparagraph (ii) of paragraph (1) of regulation 22 of these Regulations,

Canada Shipping Act—continued

- (b) the annual thorough examination of special gear exempted from the annealing required under the provisions of paragraph (3) of regulation 21 of these Regulations, and the annual thorough examination of chains made of malleable cast iron, and chains, rings, hooks, shackles and swivels made of steel required under the provisions of paragraph (4) of regulation 21 of these Regulations (unless the prescribed particulars have been obtained and entered in the register as hereinbefore described),
- (c) the annealing required under paragraph (2) of regulation 21 (unless the prescribed particulars have been obtained and entered in the register as hereinbefore described),

shall be obtained and attached to the register. Such certificates shall be signed by the competent person who has conducted the testing and examination, or supervised the annealing, as the case may be.

(3) The register shall, if it refers to lifting machinery, chain, rope or other gear forming part of the equipment of a ship, be kept aboard the ship; if it refers to chain, rope or other gear not forming part of the equipment of a ship it shall be kept on the premises of the owner.

(4) Adequate means shall be taken to enable a person examining the register, or any certificate attached thereto, to identify any lifting machinery, chain, rope or other gear.

25. The owner, master or officer in charge of a ship shall report any alteration in the lifting machinery, chain or other gear used in the processes, forming part of the equipment of the ship, to any person, competent under regulation 64, examining the register.

26. (1) For the purposes of paragraph (1) of regulation 20, paragraphs (1) and (6) of regulation 21, and subparagraph (ii) of paragraph (1) of regulation 22 of these Regulations, a competent person shall mean a Steamship Inspector, a surveyor employed by one of the classification societies—Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, or the Bureau Veritas—or a responsible person, having the necessary and appropriate technical qualifications, employed by a company or firm engaged in the building or repairing of ships, in the making or repairing of chains, hooks or such gear, or in the making of wire rope.

(2) For the purposes of paragraph (2) of regulation 21 of these Regulations a competent person shall mean a Steamship Inspector, a surveyor employed by one of the classification societies—Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, or the Bureau Veritas—an engineer officer of a ship, a responsible person having the necessary and appropriate technical qualifications, employed by a company or firm engaged in the annealing of chains, hooks or such gear, or any other person approved by the Chairman of the Board of Steamship Inspection.

27. Every derrick or crane shall have the safe working load plainly marked upon it. Where only one safe working load is marked on a derrick or crane, this shall be the safe working load with single purchase only, and where two safe working loads are marked, the first shall be the figure with single purchase, and the second the figure with double purchase. In each

Canada Shipping Act—continued

case the safe working load shall be that at the lowest inclination of the boom. If the load can only be lifted with safety at an angle greater than 15 degrees to the horizontal, the lowest permissible angle of the boom shall also be marked.

28. No pulley block shall be used in hoisting or lowering unless the safe working load is clearly stamped upon it.

29. Means shall be provided to enable any person using a chain or wire rope sling to ascertain the safe working load for such chain or sling under such conditions as it may be used.

(a) As regards chain slings, such means shall consist of marking the safe working load in plain figures or letters upon the sling or upon a tablet or ring of durable material attached securely thereto.

(b) As regards wire rope slings, such means shall consist of either the means specified in paragraph (a) of this regulation or a notice or notices, so exhibited as to be easily read by any person concerned, stating the safe working loads for the various sizes of wire rope slings used.

30. All motors, cog wheels, chain and friction gearing, shafting, live electric conductors and steam pipes shall (unless it can be shown that by their position and construction they are equally safe to every worker as they would be if securely fenced) be securely fenced so far as is practicable without impeding the safe working of the ship.

31. Cranes and winches shall be provided with such means as will reduce to a minimum the risk of the accidental descent of a load while being raised or lowered; in particular, the lever controlling the link motion reversing gear of a crane or winch shall be provided with a suitable spring or other locking arrangement.

32. Appropriate measures shall be taken to prevent exhaust steam from, and, so far as is practicable, live steam to, any crane or winch obscuring any part of the decks, gangways, stages or docks where any person is employed in the processes.

33. Appropriate measures shall be taken to prevent the foot of a derrick being accidentally lifted out of its socket or support.

34. Any ship which is registered elsewhere than in Canada shall be deemed to have complied with the provisions of this Part of these Regulations as concerns testing, examination or annealing, as the case may be, if such testing, examination or annealing has been carried out under the regulations of the country in which the ship is registered, and any register or certificate showing the tests, examination or annealing which has been carried out in respect of any lifting machinery, chain, rope or gear used in the processes, forming part of the equipment of that ship, may be accepted in lieu of any register or certificate prescribed by these Regulations, provided that the ship is registered in a country, the government of which has entered into a reciprocal agreement with the Government of Canada for the mutual recognition of the arrangements made in their respective countries for testing, examining and annealing of lifting machinery, chains, rope or gear used in the processes, and for the mutual acceptance of certificates and records relating thereto.

Canada Shipping Act—continued

PART V

35. Precautions shall be taken to facilitate the escape of workers when employed in a hold or on 'tween decks in dealing with coal or other bulk cargo.

36. (a) No lifting machinery, chain or other lifting appliance shall be loaded beyond the safe working load.

(b) No load shall be left suspended from a crane, winch or other machine unless there is a competent person actually in charge of the machine while the load is so left.

37. No person under 16 years of age and no person who is not competent and reliable shall be employed as driver of a crane or winch, whether driven by mechanical power or otherwise, or to give signals to a driver or to attend to cargo falls on winch-ends or winch-bodies.

38. Where goods are placed on a dock—

(a) a clear passage leading to the means of access to the ship required by regulation 11 shall be maintained on the dock; and

(b) if any space is left along the edge of the dock, it shall be at least 3 feet wide and clear of all obstructions other than fixed structures, plant and appliances in use.

39. (1) The deck in the vicinity of a hatch which is in use shall be kept clear of cargo or anything which might prevent free passage to the means of access required under regulation 13 of these Regulations.

(2) Cargo shall be stowed in the holds clear of the ladders required in the aforesaid regulation 13 so as to leave at each rung of the ladder, foot-hold of a depth, including any space behind the ladder, of not less than $4\frac{1}{2}$ inches for a width of 10 inches, and a firm handhold.

40. (1) No deck-stage or cargo-stage shall be used in the processes unless it is substantially and firmly constructed and adequately supported, and, where necessary, securely fastened.

(2) No truck shall be used for carrying cargo between ship and shore on a stage so steep as to be unsafe.

(3) Any stage which is slippery shall be made safe by the use of sand or otherwise.

41. (1) While the workers are on a ship for the purposes of the processes any hatch of a hold accessible to them exceeding 5 feet in depth, measured from the level of the deck in which the hatch is situated to the bottom of the hold, which is not in use for the passage of goods, coal, or other material or for trimming, and the coamings of which are less than 2 feet 6 inches in height, shall be fenced to a height of 3 feet or securely covered, provided that this regulation shall not apply during mealtimes or other short interruptions of work unless it be manifest that a dangerous condition exists.

(2) Similar measures shall be taken when necessary to protect all other openings in a deck which might be dangerous to workers.

42. (1) Hatch coverings shall not be used in the construction of deck or cargo stages or for any other purpose which may expose them to damage.

(2) Hatch coverings shall be replaced on the hatches in the positions indicated by the markings made thereon in pursuance of regulation 16.

Canada Shipping Act—continued

(3) When hatch coverings are taken off they shall be piled clear of the coamings of the hatches, and in no case shall hatch coverings or anything else be piled where loads may be dragged over them.

43. No cargo shall be loaded or unloaded by a fall or sling at any intermediate deck unless either the hatch at that deck is securely covered or a secure landing platform of a width not less than that of one section of hatch coverings has been placed across it, provided that this regulation shall not apply to any work in connection with the processes, the whole of which will be completed within a period of half an hour.

44. When the working space in a hold is confined to the square of the hatch, hooks shall not be made fast in the bands or fastenings of bales of cotton, wool, cork, gunny bags or other similar goods, nor shall can hooks be used for raising or lowering a barrel when, owing to the construction or condition of the barrel or of the hooks, their use is likely to be unsafe.

Nothing in this regulation shall apply to breaking out or making up slings.

45. When work is proceeding on any skeleton deck, adequate staging shall be provided unless the space beneath the deck is filled with cargo to within a distance of 2 feet of such deck.

46. Where stacking, unstacking, stowing or unstowing of cargo, or handling in connection therewith cannot be safely carried out, reasonable measures shall be taken to guard against accident by shoring or otherwise.

47. The beams of any hatch in use for the processes shall, if not removed, be adequately secured to prevent their displacement.

48. Where wire rope is used for hauling heavy articles into place adequate provision shall be made for the protection of the rope where passing around corners.

49. Chains shall not be shortened by tying knots in them, and suitable packing shall be provided to prevent the links coming into contact with sharp edges of loads of hard material.

50. Pins in shackles shall be suitably secured to prevent backing out.

51. When cargo is being loaded or unloaded by a fall at a hatchway, a signaller or hatch tender shall be employed, and where more than one fall is being worked at a hatchway, a separate signaller or hatch tender shall be employed to attend to each fall, provided

- (i) that this regulation shall not apply in cases where a barge, lighter, or other similar vessel is being loaded or unloaded if the driver of the crane or winch working the fall has a clear and unrestricted view of those parts of the hold where the work is being carried on;
- (ii) that where the Chairman of the Board of Steamship Inspection is of opinion that, owing to the nature of the crane or winch or other appliance in use or by reason of any special arrangements, the requirements of this regulation are not necessary for the safety of the workers, he may by certificate in writing, (which he may in his discretion revoke) suspend such requirements subject to such conditions as may be specified in such certificate.

Canada Shipping Act—continued

52. (1) Where a hatch leading to a hold in excess of 5 feet in depth, measured from the top of the deck, is not fitted with a permanent hatch coaming of sufficient height for the protection of the signaller or hatch tender, a temporary structure sufficient to give the protection required shall be erected.

(2) Adequate protection shall be provided for a signaller or hatch tender when he is required to stand on a staging or gangway elevated above the level of the deck, and where the work in which such worker is engaged involves the hoisting of cargo on an inclined gangway, such protection shall include means of escape in the event of the hoisting rope breaking or the cargo being hoisted getting out of control in any other way.

53. When any worker has to proceed to or from a ship by water for the purpose of carrying on the processes, proper measures shall be taken to provide for his safe transport. Vessels used for this purpose shall be in charge of a competent person, shall not be overcrowded, and shall be properly equipped for safe navigation and maintained in good condition.

PART VI

54. No person shall, unless duly authorized or in case of necessity, remove or interfere with any fencing, gangway, gear, ladder, hatch covering, life saving means or appliance, lights, marks, stages or other things whatsoever required by these Regulations to be provided. If removed, such things shall be restored at the end of the period during which their removal was necessary by the persons last engaged in the work that necessitated such removal.

55. The fencing required by regulation 3 shall not be removed except to the extent and for the period reasonably necessary for carrying on the work of the dock or ship, or for repairing any fencing. If removed it shall be restored forthwith at the end of that period by the persons engaged in the work that necessitated its removal.

56. Every worker shall use the means of access provided in accordance with regulations 11, 12 and 13 and no person shall authorize or order another to use means of access other than those provided in accordance therewith.

57. No person shall go upon the fore and aft beams or thwartship beams used for hatch covering for the purpose of adjusting the gear for lifting them on or off, nor shall any person authorize or order another to do so.

PART VII

58. No employer of workers shall require workers to work in holds or other spaces in a ship which have been fumigated until a certificate is produced from the fumigating officer showing that the holds or other spaces may be entered without risk.

59. No employer of workers shall require workers to work in holds with the hatches off whilst other work, or loading or unloading, is proceeding above, unless conditions are such that they are not liable to injury from any object falling from an upper deck.

Canada Shipping Act—continued

60. No employer of workers shall allow machinery or gear which does not comply with Part IV of these Regulations to be used by workers.

61. No employer of workers shall require workers to deal with or work in proximity to goods which are in themselves dangerous to life or health by reason of their inherent nature or of their condition at the time, unless all precautions have been taken to safeguard the workers, and advise them of the conditions existing. The provisions of this regulation shall have effect in respect of any place where dangerous goods have been stowed if the fact that such goods have been stowed in that place constitutes a risk to workers.

62. If the persons whose duty it is to comply with regulations 11, 12 and 14 fail so to do, then it shall be the duty of the employers of the workers, for whose use the means of access and lights are required, to comply with, and they shall comply with the said regulations within the shortest time reasonably practicable after such failure.

63. An employer of workers shall report any case of serious accident to workers as soon as possible after the occurrence thereof. The report shall be made to the Inspector of Ships' Tackle at the port where the accident happened, or if it happens at a port where there is no Inspector of Ships' Tackle, to the Chairman of the Board of Steamship Inspection.

The report shall set out in detail all the circumstances surrounding the accident.

64. (1) The register required under the provisions of regulation 24 shall be produced on demand of an Inspector of Ships' Tackle, a Steamship Inspector, or other person authorized by the Minister, by the owner, master or officer in charge of the ship, or, in the case of gear not forming part of the equipment of a ship, by the owner thereof, or his representative.

(2) If the register is not produced, the person making demand may, if he deems that the circumstances warrant it, order that any lifting machinery, chain, rope or other gear shall not be used in the processes until the register is produced, or the lifting machinery, chain, rope or gear is tested, inspected or annealed, as the case may be.

PART VIII

65. These Regulations shall not apply to—

- (a) ships which are propelled by mechanical power and which are not in excess of 150 tons, gross tonnage,
- (b) ships while employed in fishing,
- (c) vessels not in excess of 500 tons, gross tonnage, and which are not propelled by mechanical power or employed in fishing,
- (d) any ship, where on account of the small quantity of cargo handled at any one time it is not necessary to employ more than 10 workers in the processes and the weight hoisted at any one time does not exceed 1,000 pounds.

66. Notwithstanding anything hereinbefore contained—

(1) The provisions of regulation 3 of these Regulations respecting the height of fencing shall not have effect in respect of any such fencing which was erected on or before the 21st day of January, 1939, provided that the height of such fencing is at no place less than 2 feet 3 inches, and that it is maintained in good condition.

Canada Shipping Act—continued

(2) The provisions of subparagraph (a) of paragraph (1) of regulation 11 of these Regulations in respect of the height of fencing on a ship's accommodation ladder, a gangway, or similar construction which was in use on the 21st day of January, 1939, shall not have effect until the fencing is renewed, provided that the clear height of such fencing is at least 2 feet 8 inches.

(3) The provisions of subparagraphs (b) and (c) of paragraph (2) of regulation 13 of these Regulations respecting the measurements of footholds shall not have effect in respect of a ship the keel of which was laid before the 21st day of January, 1939, if the actual measurements are not less than 90 per cent of the measurements specified in subparagraphs (b) and (c) of paragraph (2) of regulation 13, until such ladders or arrangements on the coamings are renewed.

67. Any matter in dispute arising under these Regulations may be referred to the Minister of Transport, whose decision shall be final.

SCHEDULE

TESTS AND PROOF LOADS

1. Every winch with the whole of the gear accessory thereto (including derricks, goose-necks, eye plates, eye bolts, or other attachments) shall be tested with a proof load which shall exceed the safe working load as follows:—

<u>Safe working load</u>		<u>Proof load</u>
Up to 20 tons	—	25 per cent in excess
20-50 tons	—	5 tons in excess
Over 50 tons	—	10 per cent in excess

The proof load shall be lifted with the ship's normal tackle with the derrick at an angle, which should not be more than 15 degrees to the horizontal, or, when this is impracticable, at the lowest practicable angle. The angle at which the test was made should be stated in the certificate of test. After the proof load has been lifted, it should be swung as far as possible in both directions.

As a general rule, all tests should be carried out in this way by dead load, and no exception should be allowed in the case of gear on new ships. In the case of replacements or renewals, however, spring or hydraulic balances may be used where dead loads are not available. Where a spring or hydraulic balance is used it should be reliable and accurate, and the test should not be regarded as satisfactory unless the indicator remains constant for a period of at least five minutes.

2. Every crane and other hoisting machine, with its accessory gear, shall be tested with a proof load, which shall exceed the safe working load as follows:—

<u>Safe working load</u>		<u>Proof load</u>
Up to 20 tons	—	25 per cent in excess
20-50 tons	—	5 tons in excess
Over 50 tons	—	10 per cent in excess

Canada Shipping Act—continued

The proof load shall be lifted and swung as far as possible in both directions. If the jib of the crane has a variable radius, it should be tested with a proof load, as defined above, at the maximum and minimum radii of the jib. In hydraulic cranes where, owing to the limitation of pressure, it is impossible to lift a load 25 per cent in excess of the safe working load, it will be sufficient to lift the greatest possible load.

3. Wire ropes shall be tested by sample, a piece being tested to destruction, and the safe working load shall not exceed one-fifth of the breaking load of the sample tested.

4. Chains, rings, shackles and other loose gear (whether accessory to a machine or not) shall be tested with a proof load equal to that shown against the article in the following table:—

<u>Article of Gear</u>	<u>Proof Load</u>
Chain, ring, hook, shackle or—100 per cent in excess of the swivel	safe working load.
Pulley blocks—	
Single sheave block	—300 per cent in excess of the safe working load.
Multiple sheave block with—100 per cent in excess of the safe load up to and including 20 tons	safe working load.
Multiple sheave block with—20 tons in excess of the safe load over 20 tons up to and including 40 tons	safe working load.
Multiple sheave block with—50 per cent in excess of the safe load over 40 tons	safe working load.
Pitched chains used with hand-operated pulley blocks and rings, hooks, shackles or—50 per cent in excess of the swivels permanently attached thereto	safe working load.
Hand-operated pulley blocks used with pitched chains and rings, hooks, shackles or—50 per cent in excess of the swivels permanently attached thereto	safe working load.

5. After being tested as aforesaid, all lifting machinery, with the whole of the gear accessory thereto, and all chains, rings, hooks, shackles, pulley blocks or other loose gear shall be examined, the sheaves and the pins of the pulley blocks being removed for the purpose, to see whether any part has been injured or permanently deformed by the test.

(NOTE: The expression “ton” means a ton of 2,240 pounds.)

SAFETY FACTORS

6. For all metal structural parts used in lifting machinery—
- | | |
|---|----|
| when the safe working load is 10 tons or less | —5 |
| when the safe working load is over 10 tons | —4 |

Canada Shipping Act—continued

For wooden structural parts used in lifting machinery	—8
For chains	—4½
For wire rope	—5
For fibre rope	—7

If the Board of Steamship Inspection are satisfied that the safety factors recommended by any national standards association, or similar body, are sufficient, such factors may be used.

ANNEALING

7. In all cases annealing shall be carried out in a suitably-constructed, closed furnace, and not in an open fire.

For wrought-iron gear the temperature shall be between 1100°F. and 1300° F., and the exposure shall last for from 30 to 60 minutes.

Should new steel gear be annealed the temperature shall be that generally employed for normalizing, i.e., not less than 1650° F.

After being annealed the article shall be allowed to cool slowly and shall be carefully inspected.

29. Order prescribing standard of first-aid boxes or cupboards

Order of the Minister of Transport, dated June 30, 1939, under Regulation 6 of the Regulations for the Protection against Accident of Workers employed in Loading or Unloading Ships, prescribing the standard for first-aid boxes or cupboards provided in pursuance of that Regulation.

I hereby prescribe that the first-aid boxes or cupboards required by regulation 6 of the Regulations for the Protection against Accident of Workers employed in Loading or Unloading Ships, made under section 467 of the Canada Shipping Act, 1934, to be provided on docks, wharves or quays, shall comply with the following standard:—

1. Each first-aid box or cupboard shall contain at least—
 - (a) A first-aid kit, in a metal box with handle commonly used for such purpose, consisting of the following:—
 - 4 ounces burn dressing
 - 12 bandages, of 2-inch gauze
 - 12 bandages, of 3-inch gauze
 - 2 packages absorbent cotton—1 ounce packages
 - 4 packages gauze—1 yard packages
 - 1 spool adhesive tape, one inch in width
 - 6 bandages, triangular
 - 1 tourniquet
 - 1 pair scissors, small
 - 1 card safety pins
 - 2 ounces tincture of iodine—1 ounce bottles
 - 2 ounces aromatic spirits of ammonia—2 ounce bottles
 - 1 Tube boric ointment, ophthalmic
 - 24 wooden applicators
 - 24 tongue blades, wooden
 - 1 recognized first-aid booklet
 - (b) 1 dozen wooden splints, size 18 inches by 3½ inches.

Canada Shipping Act—continued

2. All materials for dressings contained in first-aid boxes or cupboards shall be of a grade at least equal to the standards prescribed by the British Pharmaceutical Codex or any supplement thereto.

C. D. HOWE,
Minister of Transport.

June 30, 1939.

30. Regulations relating to the examination of engineers

P.C. 3055

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 8th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 126 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The Regulations for the Examination of Engineers established by Order in Council P.C. 2253 of 23rd December, 1904, as amended, are hereby revoked; and

2. The attached Regulations relating to the Examination of Engineers, together with the Scale of Fees to be charged for Certificates of Competency or of Service forming Schedule II thereto, are hereby made and established in substitution for the regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RELATING TO THE EXAMINATION OF
ENGINEERS

Fourth-Class Engineers

1. No person shall be entitled to a fourth-class engineer's certificate unless he has the following qualifications, that is to say:—

- (a) He shall be over twenty-one years of age.
- (b) He shall have served an apprenticeship of not less than thirty-six months in a steam engine shop, and been employed on the making and repairing of steam engines—or if he has not served such apprenticeship, he shall have been employed for not less than thirty-six months as a journeyman mechanic in some workshop, on the making and repairing of steam engines;—or
- (c) He shall have served at least thirty-six months in an engine room of a steamboat as engineer on the watch;—or
- (d) He shall have served not less than thirty-six months as oiler on the watch in the engine room of a steamer of not less than thirty nominal horse-power;—or

Canada Shipping Act—continued

- (e) He shall have served not less than forty-eight months as fireman on the watch in the firehold of a steamboat of not less than 16 nominal horse-power, or having an engine of not less capacity than 18,000 cubic inches of cylinder volume.
- (f) And in any of the above-mentioned cases of service, twelve (12) months' service in a boiler shop on the making and repairing of steam boilers may be accepted in lieu of twelve months of the service named, provided the candidate has had thirty-six months' service as a practical boilermaker.
- (g) He shall be able to read, and write a legible hand.
- (h) He shall understand the construction and operation of the feed-water pump, water gauges and safety-valves; he shall know when a boiler is foaming, and how to stop the foaming, and also the dangers resulting from neglect to keep a boiler clean, and the usual methods of cleaning it.

Third-Class Engineers

2. No person shall be entitled to a third-class engineer's certificate unless he has the following qualifications, that is to say:—

- (a) He shall be over twenty-one (21) years of age.
- (b) He shall have served an apprenticeship of at least thirty-six months in a steam engine shop employed in the making and repairing of steam engines; or if he has not served such apprenticeship, he shall have been employed at least thirty-six months as a journeyman mechanic in some workshop, in the making and repairing of steam engines, and in either case shall also have served twelve months in the engine room of a steamboat, as engineer on the watch—such steamboat having an engine of not less than 4 nominal horse-power if a single cylinder engine, or 9 nominal horse-power if of the compound type;—or
- (c) He shall have served forty-eight months at least in the engine room of a steamboat as an engineer on the watch, having an engine of not less than 4 nominal horse-power if a single cylinder engine, or 9 nominal horse-power if of the compound type, or thirty-six months as an engineer on the watch on steamboats having an engine of not less than 30 nominal horse-power.
- (d) He shall be able to give a description of boilers and the methods of staying them, and shall know the means of repairing them, the method of lining the engine, setting the eccentrics and adjusting the valves, the cause of any derangements and the means of remedying it.
- (e) He shall be able to read and write a legible hand, and understand the first five rules of arithmetic.

Second-Class Engineers

3. A second-class engineer shall have qualifications as follows, that is to say:—

- (a) He shall be over twenty-one years of age.
- (b) He must have served an apprenticeship of not less than thirty-six months in a steam engine shop, and have been employed on the

Canada Shipping Act—continued

making and repairing of steam engines; or if he has not served such an apprenticeship he must prove, that for not less than thirty-six months he has been employed as a journeyman mechanic, in some workshop, on the making or repairing of steam engines,* in either case he must also have served at least twenty-four months in the engine room of a steamboat of not less than 30 nominal horse-power, as an engineer on the watch; or

- (c) He must have served at least forty-eight months in the engine room of a steamboat as engineer on the watch, at least thirty-six months of which shall have been on a steamboat of not less than 30 nominal horse-power, the remaining twelve months to be on steamboats of not less than 5 nominal horse-power if a single cylinder engine, and 10 nominal horse-power if of the compound type.
- (d) He must be able to give a description of boilers, and the methods of staying them, together with the use and management of the different cocks, valves, pipes and connections.
- (e) He must understand how to correct defects from accident, decay, etc., and the means of repairing such defects.
- (f) He must understand the use of the barometer, thermometer, salinometer, and the principles on which they are constructed.
- (g) He must state the causes, effects and usual remedies for incrustation and corrosion.
- (h) He must be able to state how a temporary or permanent repair could be effected in case of derangement of a part of the machinery.
- (i) He must write a legible hand and understand the rules of arithmetic, and decimals, and their application to questions about consumption of stores, and full capacity of tanks and bunkers, the duty of pumps, and the direct strains in engines and boilers.
- (j) He must be able to pass a creditable examination as to the various constructions of paddle and screw engines in general use; as to the details of the various working parts, external and internal, and the use of each part.

First-Class Engineers

4. A candidate for first-class engineer's certificate must be at least twenty-two years of age.

- (a) In addition to the qualifications required for a second-class engineer, he must have at least twelve months' service as senior engineer in the engine room, in a steamboat or in steamboats of 100 nominal horse-power or over, during which time he must have held a second-class engineer's certificate of competency.
- (b) He shall be competent to calculate the thickness of plates for a boiler of given dimensions to carry a fixed pressure of steam per square inch, also the pressure a boiler may be allowed as a working pressure, its dimensions, stays and other parts, method of construction and thickness of plates being given.
- (c) He shall be able to calculate the direct strain, the twisting strain, and the bending strain in rectangular bars, and in round bars, with

* No period of service in a drawing office of over six months can be allowed to count for workshop service.

Canada Shipping Act—continued

- given loads, the required capacity of the feed pump, and the area of the safety-valves for a boiler of given dimensions, and the power of the engine from an indicator diagram of its work.
- (d) He shall know the relative volumes of steam at different temperatures and pressures, the chemical constituents of coal, and the quantity of air required for its combustion.
 - (e) He must have a knowledge of surface condensation, superheating and the working of steam expansively.
 - (f) He must be able to explain the operations of the engine, and to make a working drawing of any of its parts.
 - (g) His knowledge of arithmetic must include the extraction of the square and cube roots, and the mensuration of superficies and solids.

Interpretation

The term "apprenticeship" refers to one who has been employed continuously for the period mentioned, gaining the instructions as required under a master. And if such service has not been continuous in one employ, the applicant must have at least forty-eight months' service on the making or repairing of steam engines.

The term "journeyman mechanic" refers to a person who has been employed as competent to perform the duties of shaping and fitting the parts of steam engines and erecting them.

The term "engineer on the watch" means the person in charge of the propelling engines and boilers and responsible for the bells or signals while on duty under way. And service as fireman or engineer on steam dredges or floating elevators may be accepted as qualifying for fourth-class if the engine is of the required nominal horse-power as defined by section 1 of the regulations, and for third- or second-class, one-half of such service may be accepted if the engine is of the required nominal horse-power as defined by sections 2 and 3 of the regulations. The other half shall be service as engineer on steamboats.

Applications for examination are to be made to the Board of Steamship Inspection, or to the inspector of the division where the candidate resides, the application to be made on forms furnished for that purpose by the inspector, and to be accompanied with proof of service, and testimonials as to sobriety, experience and ability, and to character, and to general good conduct for at least the twelve months immediately preceding the date of application to be examined. If the service has been on shore the testimonials must be signed by an employer; if at sea by the master and chief engineer; if not so signed satisfactory reasons must be given the examiner, who will not accept proofs of service or testimonials which are not entirely satisfactory. In the absence of the necessary verification the candidate cannot be examined.

The examiner should be particularly careful to ascertain that there are no gaps in the candidate's service which are not properly accounted for, before he is allowed up for examination.

Engineers who from any cause have had their certificates cancelled will be re-examined before they are again allowed to hold a certificate of the same grade. Upon their passing the examination a new certificate will be issued to them. The Minister of Marine may, however, in special cases, upon report of the Board of Steamship Inspection, if the circumstances warrant it, dispense with the re-examination.

Canada Shipping Act—continued

QUALIFICATIONS REQUIRED FOR SECOND- OR FIRST-CLASS ENGINEER'S
CERTIFICATES VALID IN THE UNITED KINGDOM

Candidates for second- or first-class Canadian (engineer's) certificates valid in United Kingdom will be required to pass examinations equal to the examinations in the United Kingdom.

The service required, proof of which the examination papers of the applicant must exhibit, is as follows:—

Second-Class Engineer

5. A candidate for a second-class engineer's certificate must be twenty-one years of age.

- (a) He must have served as an apprentice engineer for four years at least, and prove that during the period of his apprenticeship he has been employed on the making or repairing of steam engines, boilers, etc. Three years of the apprentice time must have been passed in the fitting or erecting shops, or in both. In calculating the four years of artisan service which are to constitute the required apprenticeship, which should not begin at an earlier age than 15, time spent at a technical school (recognized by the Board of Steamship Inspection as suitable) where there is an engineering laboratory, may be taken into account and accepted as equivalent to artisan service at the ratio of three years in the technical school to two in artisan service, provided that the applicant was over 15 years of age, and can produce the principal's certificate for regular attendance and satisfactory progress, and provided also that in such case the other portion of the time was spent in the fitting or erecting shop of an engineer, as indicated above.

Journeyman's time will be considered as equivalent to apprenticeship.

Every applicant must produce testimonials of ability as an engineer workman to the satisfaction of the Chairman of the Board of Steamship Inspection.

If the candidate has not served for four years as an apprentice engineer or as journeyman, he will be required to have served, *in lieu thereof*, four years at sea as engineer on regular watch on the main engines or boilers of a foreign-going steamer of not less than 66 nominal horse-power, or six years in a home-trade steamer of not less than 66 nominal horse-power.

- (b) In addition to the apprenticeship as above described or the alternative sea service, the applicant must have served one year at sea as engineer on regular watch on the main engines or boilers of a foreign-going steamer of not less than 66 nominal horse-power; or eighteen months in a home-trade steamer of not less than 66 nominal horse-power.
- (c) He must be able to give a satisfactory description of boilers and the methods of staying them, together with the use and management of the different valves, cocks, pipes, and connections.
- (d) He must understand how to correct defects from accidents, decay, etc., and the means of repairing such defects.
- (e) He must understand the use of the water gauge, pressure gauge, barometer, thermometer, and salinometer, and the principles on which they are constructed.

Canada Shipping Act—continued

- (f) He must state the causes, effects, and usual remedies for incrustation and corrosion.
- (g) He must be able to explain the method of testing and altering the setting of the slide valves, and method of testing the fairness of shafts and adjusting them.
- (h) He must be able to calculate the suitable working pressure for a steam boiler of given dimensions, and the stress per square inch on crank and tunnel shafts when the necessary data are furnished.
- (i) He must understand the construction of steering engines, evaporators, feed filters and feed heaters.
- (j) He must understand the construction of centrifugal, bucket, and plunger pumps, and the principle on which they act.
- (k) He must be able to state how a temporary or permanent repair could be effected in case of derangement of a part of the machinery or total breakdown.
- (l) He must write a legible hand, and have a good knowledge of arithmetic up to and including vulgar and decimal fractions and square and cube root. He must also understand the application of these rules to questions about safety valves, coal consumption, consumption of stores, capacities of tanks, bunkers, etc.
- (m) He must be able to pass a creditable examination as to the various constructions of paddle and screw engines in general use; as to the details of the different working parts, external and internal, and the use of each part.
- (n) He must possess a creditable knowledge of the prominent facts relating to combustion, heat and steam.

First-Class Engineer

6. A candidate for a first-class engineer's certificate must be not less than twenty-two years of age.

In addition to the qualifications required for a second-class engineer—

- (a) He must—
 - (1) have served at sea for twelve months, with a second-class certificate of competency or service, as senior engineer in charge of a watch on the main engines or boilers of a foreign-going steamship of not less than 99 nominal horse-power; or
 - (2) have served at sea for eighteen months, with a second-class certificate of competency or service, as first engineer of a home-trade steamer of not less than 99 nominal horse-power; or two years with a second-class certificate of competency or service as second engineer of a home-trade steamer of not less than 99 nominal horse-power; or
 - (3) have served two and one-half years with a second-class certificate of competency or service as third engineer of a home-trade steamer of not less than 99 nominal horse-power, if during the whole of that period he has been the senior engineer in charge of a watch on the main engines and boilers; or

Canada Shipping Act—continued

- (4) possess, or be entitled to, a first-class certificate of service.
- (b) He will be required to make an intelligible hand sketch or a working drawing of some one or more of the principal parts of a steam engine, and to mark in, without a copy, all the necessary dimensions in figures, so that the sketch or drawing could be worked from. (*See Appendix I.*)
- (c) He must also be able to take off and calculate indicator diagrams.
- (d) He must be able to calculate safety-valve pressures, and the strength of the boiler shell, stays and riveting.
- (e) He must be able to state the general proportions borne by the principal parts of the machinery to each other, and to calculate the direct stress, the torsional stress, and the bending stress in round bars, and the direct stress and the bending stress in rectangular bars with given loads.
- (f) He must be able to explain the method of testing and altering the setting of the slide valves, and to sketch about what difference any alteration in the slide valve will make in the indicator diagram, and also the method of testing the fairness of shafts, and of adjusting them.
- (g) He must be conversant with surface condensation, superheating, and the working of steam expansively.
- (h) His knowledge of arithmetic must include the mensuration of superficies and solids and the extraction of the square and cube roots, and the application of these rules to questions relating to the power, duty, and the economy of engines and boilers, and to the stresses in rods, shafts, and levers of the engine.
- (i) He must understand the construction of, and be able to maintain in working condition the auxiliary machinery which is placed under his charge, viz: refrigerating machinery, electric light engines, and dynamos, electric motors fitted to ships' boats, hydraulic machinery and the various descriptions of steering engines, etc.

7. When the workshop service has been performed in a place where steam engines are not made or repaired, and the class of work done is similar to that required in engine making, the service may be accepted with an additional year in the engine room; that is, four years' workshop service and two years in the engine room (of which one year must have been at sea), or one year at sea in the engine room and one year at engine fitting in a suitable marine engine workshop. The approval of the Chairman of the Board of Steamship Inspection must be obtained in every such case before the candidate is examined.

8. When the workshop service has been performed in a place where engines are made, and the department in which the applicant has been principally engaged is not "fitting" or "erecting", the case must be referred to the Chairman of the Board of Steamship Inspection, with a report upon the service performed. If the service be such as is useful training for an engineer, the Chairman may accept the service, but in every such case the applicant must prove additional engine room or marine engine workshop service as required above.

9. In the case of candidates for first-class certificates qualifying service means service on regular watch as senior engineer in charge of the main engines or boilers. During the whole of the period claimed candidates must have been in possession of second-class certificates.

Canada Shipping Act—continued

In the case of candidates for second-class certificates, qualifying service means service as engineer on regular watch on the main engines or boilers. In no case will time spent in clerical work be allowed to count.

10. In all cases the candidates' names must have been duly entered on the ships' articles as engineers in their proper ratings.

11. Being on regular watch means being on watch for at least eight hours a day.

12. Only such service as gives the experience required to make a man thoroughly competent as a sea-going engineer is accepted as qualifying service. Even for a second-class certificate the candidate must prove to the satisfaction of the examiner that he is qualified by experience and knowledge to act as chief engineer in an underpowered steamer of 99 nominal horse-power on a voyage, say Canada to England, taking full responsibility for engines and boiler.

13. The sea service required by these regulations is, unless otherwise stated, service performed in foreign-going ships.

14. Service in the home or coasting trade is regarded as being equivalent to two-thirds of the same period of time served in the foreign trade.

15. Service as watchkeeper on a lake or river steamer of not less than 66 nominal horse-power may be accepted under the following conditions:—

(1) The service will only count half as much as sea service; i.e., every two months of lake or river service is only equivalent to one month's sea service.

(2) Candidates for second-class certificates must prove, in addition to the lake or river service, at least three months' qualifying service at sea in a steamship of not less than 66 nominal horse-power.

(3) Candidates for first-class certificates must prove, in addition to lake or river service in vessels of 99 nominal horse-power, at least, six months' qualifying service at sea, with a second-class engineer's certificate, in vessels of not less than 99 nominal horse-power.

16. Service performed on board auxiliary screw whalers and other vessels with auxiliary steam power of not less than 66 nominal horse-power, in the capacity of engineer, may be allowed to count towards qualifying candidates for examination for second-class engineer's certificates of competency to the extent of one-half the time the vessel is actually at sea. If the candidate is able to prove a larger amount of time under steam, he will be allowed to count the whole of such extended time.

17. Service in sea-going steam dredges, trawlers, or tugboats may be accepted under the following conditions: Two months of such service is only equivalent to one month's qualifying service. Candidates for second-class certificates may perform all their sea service in sea-going steam dredgers, trawlers or tugboats, but they must have been on regular watch on the main engines or boilers, and the vessel must not be less than 66 nominal horse-power. Candidates for first-class certificates must have served in vessels of at least 99 nominal horse-power, and have been in

Canada Shipping Act—continued

charge of a watch on the main engines or boilers. They must in addition have served in a qualifying capacity for at least six months in a foreign-going cargo or passenger steamship, or nine months in a home-trade cargo or passenger steamship.

18. All candidates will be required to produce in addition to the official discharge certificates, testimonials as to their workshop service and as to their service at sea. The testimonials as to workshop service must be signed by the employer, and must testify to the candidate's conduct and ability, and state what kind of work he was engaged on (e.g., fitting, erecting, etc.), and for how long.

19. Testimonials as to service at sea must testify to the applicant's sobriety, experience, ability and general good conduct for at least the twelve months' service at sea preceding the date of application to be examined. They must be signed by the master and chief engineer (or in the case of testimonials to chief engineers, by the master and superintending engineer) and must clearly state whether the applicant was on regular watch, and in regular charge of a watch on the main engine or boilers. It is desirable that testimonials of candidates should be endorsed by the superintending engineer. No time spent in clerical work will be allowed to count.

20. In cases where a testimonial from the chief engineer, or from the master, is for any sufficient reason not obtainable, one may be submitted from the superintending engineer in place of that of the chief engineer, and one from the managing owner or secretary or chairman of a large company in place of that of the master; but in every such instance the testimonial must declare that the facts stated are in accordance with the reports made by the chief engineer or the master, as the case may be, or else that the facts are within the writer's personal knowledge.

21. When a candidate is observed to be hard of hearing, or is labouring under any other obvious physical defect, the signatories of his testimonials are required to mention that defect specifically, and to state whether it in any way interfered with the efficiency of the candidate as an engineer on the watch. When these modified testimonials are such as to completely satisfy the Examiner that the defect is not such as to interfere with the efficient discharge of the applicant's duties as engineer, the examination is proceeded with; otherwise the case is referred to the Chairman of the Board of Steamship Inspection. Candidates afflicted with nervous impediment in speech may write their answers to *viva voce* questions.

22. The testimonials of service of foreign engineers and of British engineers serving in foreign vessels, which cannot be verified by the Registrar General of Seamen, must be confirmed either by the consul of the country to which the ship in which the candidate served belonged, or by some other recognized official authority of that country; or by the testimony of some credible person on the spot having personal knowledge of the facts required to be established. The production, however, of such proofs will not of necessity be deemed sufficient. Each case must be decided on its own merits, and if the sufficiency of the proofs given appears to be at all doubtful, the point must be referred to the Chairman.

23. Service which cannot be verified by proper entries in the articles of agreement of the ships in which the candidates have served cannot be counted.

Canada Shipping Act—continued

24. Foreign engineers must prove to the satisfaction of Examiners that they can speak and write the English language sufficiently well to perform the duties required of them on board a British vessel. In every case, before failing a candidate for insufficient knowledge of the English language the Examiner should refer the matter to the Chairman. Examiners will be guided in the elementary and arithmetical questions by the regulations issued; as stated therein, complying with British Board of Trade requirements as per copies supplied.

APPENDIX I

EXAMINATION IN ROUGH WORKING DRAWING FOR A FIRST-CLASS ENGINEER'S
CERTIFICATE OF COMPETENCY

1. The regulations of the Board of Trade in regard to the qualifications of a candidate for a first-class engineer's certificate of competency specify that,—

“He must be able to make rough working drawings of the different parts of the engines and boilers.

“He must be able to state the general proportions borne by the principal parts of the machinery to each other.”

2. In accordance with these clauses, a candidate for a first-class certificate is required to make a rough working drawing of the parts specified as on specimen form Exn. 17a. An engineer who has been some years in charge of marine engines and boilers ought to have familiarly in his mind the general construction of at least one set of engines and boilers, say that set he was last with. Fine drawing is not expected, and in the proportions of the parts a wide margin will be allowed; absurd dimensions will be failure in practical knowledge.

3. The drawing must, however, be practically a working drawing, giving a sufficient number of views to show the parts fully—sections, plans, or elevations, just as the candidate would require to be supplied to him if he had to make the parts to the design of another person.

4. A clear hand sketch showing the construction, completely and fully dimensioned, will be accepted if the candidate prefers this alternative.

5. A portion only of the parts specified may be accepted in place of the whole, if that portion is sufficient to show that the candidate has a good practical idea of the construction of the parts, and a fair notion of their general proportions or dimensions.

6. Candidates are hereby cautioned not to put on paper what they have not fully considered, and deliberately intend to be understood as their statement of what they know about the construction of any part required.

7. The statements given in by a candidate may be in themselves, apparently, of little importance, but as sample material from which the state of the candidate's knowledge of engines and boilers is to be inferred, every detail which is glaringly inconsistent with a sound knowledge of the use of that part, or in which an essential consideration has evidently been overlooked, is an important element in the description which the candidate is giving of his own qualifications.

Canada Shipping Act—continued

8. The candidate is advised not to begin more than he can clearly finish in the time allowed. An important object in this part of the examination is to ascertain whether the candidate can be trusted to mark all necessary dimensions upon a sketch or drawing. The test of this is, practically, the making of the part from the sketch without having to supply additional dimensions, and without measuring the drawing. To prove this ability the candidate must fully dimension the parts shown in his sketch or drawing, notwithstanding that the parts may be correctly drawn to scale. A drawing is fully dimensioned when no part of it is left to the option of the party who is to work to the drawing.

9. To prevent misunderstanding, however, when the candidate has been led into showing more of the details than he has time fully to finish, he should name, in the statement on the other side, the particular parts which he has fully dimensioned.

10. All dimensions should have lines and darts, to indicate distinctly the points between which the dimensions are given.

11. Beware of writing cross dimensions upon centre lines, or upon longitudinal dimension lines. This is not an order but a recommendation.

12. The candidate is not expected to design anything; he has merely to sketch or draw a something with which he is expected to be already familiar. At the same time he should call attention to any defect in the design of the article or apparatus. Omission to do so will imply want of practical knowledge.

13. Pencil in nothing after half-past three; all the dimensions, the figures and the darts must be inked in; employ the remaining time in examining the drawing and in inking in any figures which may have been overlooked, and in checking the dimensions.

14. Make sure that you will have sufficient room on the drawing sheet to show all the necessary views. You can have another sheet of drawing paper if necessary. All the paper used must be forwarded with the drawing.

SUBJECT FOR EXAMINATION IN ROUGH WORKING DRAWING

(Form Exn. 17a)

(SPECIMEN)

Read the foregoing general instructions

A common slide valve with its spindle. Show also an outline section of the ports at the cylinder face. Show the provision for connecting the slide valve to the spindle.

The candidate is requested to fill up the following, and to attach this paper to his drawing:—

STATEMENT BY THE CANDIDATE

The accompanying drawing, made by me this day, without referring to any document, and without the assistance of any person, is intended by

Canada Shipping Act—continued

me to be sufficient for the new construction of the parts above described to fit the places of similar parts which are to be removed. The construction is similar to what I have been with in the.....steamer..... but the dimensions may be different.*

- The diameter of the cylinder is.....
- The stroke of the piston is
- The stroke of the valve is.....
- The cover at top end on steam side is.....
- The cover at bottom end on steam side is.....
- The lead at top is intended to be.....
- The lead at bottom is intended to be.....
- The inside cover is.....or.....
- The thickness of the face of valve is.....
- The thickness of the body of valve is.....
- The greatest opening for steam will be.....
- That gives an area equal to one.....
- The opening for exhaust when the crank is on the top centre is.....
- That gives an area equal to.....th of piston.

The length of the connecting rod is..... }
The valve will cut off steam on the down } The candidate may omit
stroke at } this part if he chooses.
The valve will cut off steam on the up }
stroke at }

The parts fully dimensioned, in ink, are.....
Dated at
this day of.....19....
.....Applicant.

APPENDIX II

SCALE OF FEES TO BE CHARGED FOR CERTIFICATES OF COMPETENCY
OR OF SERVICE

- 1. For the first certificate to an engineer of any class..... \$5.00
- 2. For a certificate raising an engineer of any class to a higher class 5.00
- 3. For a temporary certificate, for a term not exceeding one year, authorizing the applicant to act as engineer on a steamboat carrying passengers, having an engine of not more than four nominal horse-power if of the single cylinder type, or fourteen nominal horse-power if of the compound type, which steamboat, and the limits within which the applicant may act, shall be designated in the certificate 2.00
- 4. For a certified copy of a certificate of any class when it has been satisfactorily demonstrated to the Board of Steamship Inspection that, due to loss or destruction of such certificate, a copy thereof may, with propriety, be issued 1.00

* Run the pen through the words that do not apply.

Canada Shipping Act—continued

31. Regulations respecting the inspection of boilers and machinery of steamships

P.C. 3111

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 405 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The Instructions for the Inspection of Boilers and Machinery of Steamships, established by Order in Council P.C. 569 of 10th March, 1922, as amended, are hereby revoked; and

2. The annexed Regulations Respecting the Inspection of Boilers and Machinery of Steamships are hereby made and established in substitution for the Instructions hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING THE INSPECTION OF BOILERS AND MACHINERY
OF STEAMSHIPS

Definitions

Where in these regulations any of the following expressions are used they shall, for the purposes of these regulations, have the meanings as hereunder set out:

- (a) "*Board*" means the Board constituted under section 375 (1) of the *Canada Shipping Act, 1934*.
- (b) "*Chairman*" means the Chairman of the Board as constituted under the above mentioned section of the *Canada Shipping Act, 1934*.
- (c) "*Inspector*" means an Inspector appointed under section 372 of the *Canada Shipping Act, 1934*.
- (d) "*Approved*" means approved by the Board.
- (e) "*Steamship*" includes all vessels as described in section 2 (101) of the *Canada Shipping Act, 1934*.
- (f) "*Ton*" means a ton of 2,240 pounds avoirdupois.
- (g) "*Nominal horse-power*" shall mean the figure found by dividing the sum of the squares of the diameters of all the cylinders of an engine (in inches) by thirty, and shall refer to steam driven reciprocating engines only.

Canada Shipping Act—continued

PART I

INSPECTION—GENERAL INSTRUCTIONS

1. (a) Inspectors are required under the provisions of the *Canada Shipping Act* to fix the limits of pressure that may be carried in any main boiler of a steamship which is to receive a certificate of inspection, and to determine whether the boilers and machinery are sufficient and suitable for the service intended, and in good condition, and no Inspector shall issue a certificate until he has satisfied himself by actual examination and by a series of calculations (where necessary) that he can with propriety do so, nor until the safety valves on the boilers have been set by him (under steam) to blow off at the pressure assigned.

(b) The preceding paragraph requires that an Inspector shall take all proper means to assure himself not only that the boilers and machinery are of sufficient strength for the steam pressure to be carried, but also that the propelling engines and boilers are sufficient in power and capacity so that the ship, having due regard to her dimensions and form, and the nature of the voyages she is to make, can be manoeuvred and handled at sea with a proper degree of safety.

(c) The machinery to be inspected comprises the engines and boilers used for propelling the ship and all the machinery connected therewith. Donkey boilers that are in any way attached to or connected with the main boilers, or with the machinery used for propelling the ship, or which are used for supplying steam for the steering gear, pumps, or other machinery which might be required while a ship is at sea, are to be inspected and to have their working pressure fixed in the same way as for the main boilers, and to have water and steam gauges and all other fittings complete, and as regards safety valves should comply with the same regulations as main boilers.

Boilers and machinery used exclusively for loading or unloading a ship, such as cargo winches, and used exclusively for apparatus not connected with the motive power of the ship do not form part of the machinery required under the *Canada Shipping Act* to be inspected. However, the main boilers and machinery in dredges are to be inspected the same as the main boilers and propelling machinery of an ordinary ship whether a dredge be self-propelling or not.

(d) The attention of Inspectors is called to section 444 of the *Canada Shipping Act* as amended. Under this section the master, owner or engineer of any steamship is required to report to the Inspector who last issued a certificate to the ship any injury to the hull, machinery or boiler thereof. Inspectors should, on receipt of such advice, take all necessary action to discover the extent of the damage, and if it appears to be such as to render the ship unseaworthy the certificate already issued should be cancelled.

2. (a) Inspectors should, before granting certificates, be careful when examining the machinery to have—

- (1) the upper brasses of all bearings taken off;
- (2) the shaft turned around and carefully examined;
- (3) the cylinder covers and junk rings lifted for examination of the cylinders and pistons;
- (4) the casing covers removed for examination of slide-valves, and if necessary, the slide-valves taken out;

Canada Shipping Act—continued

- (5) the air and circulating pump covers lifted for examination of the pump buckets and valves;
- (6) the covers of all feed and bilge pump valves removed for the examination of the valves;
- (7) all discharge valves and sea cocks taken apart for examination;
- (8) in turbine engines, the rotor casings lifted and where reduction gears are fitted these opened out.

The propeller shaft is to be examined annually and withdrawn at intervals of not more than three years in the case of ships fitted with continuous liners and of not more than two years in the case of other ships; in the case of ships operating in fresh water only, these periods shall be four years and three years respectively.

In all cases in which the shaft is withdrawn it is to be seen again after the screw has been secured in its place.

(b) Notwithstanding anything contained in the preceding paragraph of this section Inspectors must remember that on signing a certificate of inspection they are taking the responsibility of declaring that the propelling machinery is safe and sufficient for the purpose for which intended. They should, therefore, refuse to sign a certificate unless from the examination and inspection they have made they are satisfied that they can, with propriety, do so, and they are entitled to demand facilities for such reasonable extended inspection over and above that outlined hereinbefore as may appear necessary.

On the other hand, having regard to the fact that many small steamships are employed exclusively within the limits of sheltered waters or within short distance of such sheltered waters, in which case derangement or breakdown to the propelling machinery would not be liable to the same serious consequences as would be the case in a ship going beyond those limits, therefore, in the case of such steamships such extended examination of the engines annually as set out in paragraph (a) of this section may not be necessary, and the Board shall have power to decide in any particular or general case accordingly. However, the whole of the inspection of the main engines of such ships as outlined in the preceding paragraph (a) of this section should be carried out within a period of four years.

(c) When an Inspector has seen the machinery of a new steamship in the shop before it is put together, and is satisfied with it, it will not be necessary to have it again opened up on board the ship, on the first inspection for examination, either by himself or another Inspector, unless in the Inspector's judgment it is necessary after the vessel has been tried under steam.

(d) After the examination of the parts has been made as required in paragraph (a) of this section the machinery must be tried under steam at full pressure, except in the case of small ships as set out in paragraph (b). In the case of a new steamship the steam trial should be made at sea or under conditions which approach those of the service in which the ship will be engaged.

(e) In the case of steamships coming under inspection for the first time and having exceptionally high speed relatively to the dimensions of the ship the Inspector should satisfy himself by a trial with the ship at full speed that the steering engine and gear are sufficient.

3. (a) At every regular annual inspection of a steamship, or oftener if deemed necessary, an Inspector shall, if possible, go inside the boilers

Canada Shipping Act—continued

and make a thorough examination of them, the bridges and fire bars being removed to permit of such. The furnaces, lower part of combustion chambers, shell, etc., should be drilled when considered necessary, in order to ascertain their actual thickness, and an Inspector, in order to satisfy himself as to the strength and internal condition of a boiler should, if he deem it necessary, order pieces to be cut from it for examination and test.

The safety valves, main stop valves, feed check valves, blow-off cocks or valves and water gauge cocks on the boilers shall be taken apart for examination at each annual inspection, also any other valves or cocks deemed necessary by the Inspector.

(b) Certificates must not be granted for boilers which the Inspector is unable to enter in consequence of the manholes not being large enough or being improperly placed, until sufficient means of access is provided. The obligation of entering a boiler for inspection can only be relaxed in the case of boilers so small that entering them would be a physical impossibility.

(c) When stays alone prevent the Inspector going into a boiler such stays should be removed, but he must see them properly replaced before granting his certificate.

4. (a) It shall be the duty of a steamship owner or his agent to have the boilers of a ship opened out for inspection, the outside and inside plates being clean, furnace grates and bridges removed so that satisfactory and efficient inspection may be made, and when bulkheads are so placed as to prevent a close examination of the boiler they shall be removed or other satisfactory arrangements made to allow of a thorough examination.

(b) If any part of a main boiler near the uptake, fire-boxes or furnaces is so constructed that the Inspector cannot examine it, he should withhold the certificate and submit the case for a decision of the Board.

(c) When boilers are not large enough for an Inspector to enter they should be examined as far as possible before applying the hydraulic test. The hydraulic test may also be applied at intermediate inspections, if such are held, and if the Inspector considers the test necessary.

(d) If a boiler is too hot for the Inspector to examine the inside efficiently, and with safety and convenience, he should decline to examine it, and refuse to grant a certificate until he can make an efficient internal examination.

(e) An Inspector who has to enter a boiler which it is possible to connect with another boiler under steam should, before doing so, take all reasonable precautions to secure immunity from the danger of steam being turned into the boiler in which he is.

5. Inspectors should see that boilers, so placed that the outside of the bottom cannot be examined, are lifted for inspection at least once in every four years, or oftener if considered necessary. If the owners in any special case object to lifting a boiler when the Inspector requires it, the case should be referred to the Board for consideration. Inspectors must recollect that they are not to certify as sufficient any boiler respecting which they cannot thoroughly satisfy themselves.

6. (a) Inspectors should pay particular attention to the securing and fastening of boilers and machinery in the ship. The use of cast iron chocks and saddles for boilers should be discouraged in iron or steel ships but in wooden ships it often will be found of advantage to use cast iron for this purpose, and no objection need be taken to the use of this material for boiler

Canada Shipping Act—continued

chocks or saddles in wooden ships, when the foundation under the boilers is wood, provided they are substantial, sound castings of ample dimensions and that no part of a chock or saddle is rivetted to the boiler.

(b) Inspectors are also to pay particular attention to the supporting and securing of the pipes in a ship, especially the main steam pipes, ample provision being made for expansion and contraction.

7. (a) Inspectors should, if possible, make their inspections when the owner, agent, or master and chief engineer of the vessel are present. Defects can then be pointed out to the proper persons without incurring uncertainty and delay attendant upon messages delivered to subordinate officers. If however, the owners do not instruct a responsible representative to be present, the Inspector will, if proper facilities have been given, proceed with the inspection in his absence.

(b) In order to prevent mistakes as to the nature and extent of repairs required by Inspectors whenever they cannot give a certificate until repairs are effected or alterations made, they shall give to the owner or his representative a written statement of the nature and extent of the defects to be remedied or alterations required, whether such statement is applied for by him or not.

(c) If any difference of opinion occurs or any questions are raised between the Inspector and the owner or other person interested, the case shall be reported to the Chairman.

8. (a) It is most desirable that an Inspector should complete the inspection of the boilers and machinery of a steamship in every detail when he has commenced it, and if possible, arrangements should always be made to secure this end. In exceptional cases where this cannot be arranged an Inspector when he completes any detail of inspection shall report to the Chairman the details of the inspection made by him and shall forward a copy of this report to the Inspector who is to complete the inspection provided he has the information to allow him to do so.

(b) An Inspector who is required to complete inspection begun by another Inspector shall not issue a certificate unless he has the report above mentioned giving details of the inspection made by the first Inspector nor unless this report is satisfactory. However, notwithstanding anything contained in such report the Inspector who finally issues the certificate must take all proper means to satisfy himself that the parts of the boilers or machinery not inspected by himself have not, by accident or from any other cause, become defective or such that their condition would not warrant the issue of a certificate.

(c) Inspectors are cautioned that it is not intended by the preceding section to allow of undue latitude in regard to partial inspections. Generally speaking, the inspection of individual boilers should be completed by one Inspector, similarly with regard to the main engines, it being understood that partial inspections should be of such a nature that individual units such as boilers, main engines or tailshafts and fittings should be completed by the same Inspector. However, all doubtful cases should be referred to the Chairman for his decision.

9. If important pieces of machinery, such as steam steering gear or donkey boilers or evaporators intended for use in connection with the propelling machinery, are fitted on board after a certificate has been issued

Canada Shipping Act—continued

such certificate is liable to be cancelled unless such machinery has been examined and passed by the Inspector concerned and a certificate of inspection is likewise liable to be cancelled in the event of any serious derangement of such machinery.

10. A certificate shall not be issued for any steamship in case any part of the boilers, propelling machinery, main auxiliaries or pipes, mountings or fittings in connection therewith are, on account of their material, workmanship or design, or on account of age or for any other cause, unsafe.

Cast iron is not a suitable material for boiler mountings when fitted below or partly below the normal water level. Inspectors should not pass any boiler fitted with cast iron stays or reinforcing rings.

Inspectors are also to refuse a certificate in any case where they have reason to believe that the arrangement or situation of any relief valve, valve cock or other control is such as to be liable to cause undue risk to the engine room crew in an emergency.

HYDRAULIC TESTS BOILERS, PIPES, ETC.

11. (a) Inspectors shall require all new boilers to be tested by hydraulic pressure, the test to be applied before the boilers are placed in the ship and before they are lagged. For boilers which are to be allowed a working pressure not in excess of 100 pounds per square inch, the hydraulic test pressure must be twice the working pressure; for boilers which are to be allowed a working pressure in excess of 100 pounds per square inch the test pressure must be $1\frac{1}{2}$ times the working pressure, plus 50 pounds.

(b) Inspectors shall require all boilers to be tested by hydraulic pressure to $1\frac{1}{2}$ times the working pressure when they come under Canadian Government inspection for the first time, or when they have been lifted and before being reset, or after undergoing important repairs.

(c) At each annual inspection and at such other times as he deems it necessary to do so an inspector may require any boiler inspected by him to be tested by hydraulic pressure, provided he has reason to believe that the condition of the boiler is such that hydraulic test is necessary for the disclosing of weaknesses which may not be made evident otherwise, but in such case the test pressure shall not be in excess of $1\frac{1}{2}$ times the working pressure.

However, in the case of boilers which are of such size or design that they cannot be entered for a proper internal examination, an inspector shall, at each annual inspection, require such boilers to be tested by hydraulic pressure, the test pressure to be $1\frac{1}{2}$ times the working pressure which the boilers are to be allowed.

(d) Inspectors are to fix the working pressure of boilers by a series of calculations of the strength of the various parts and according to the workmanship and material of which they are composed, and before testing a boiler by hydraulic pressure they shall examine it, take the necessary measurements and calculate what the working pressure should be in accordance with the regulations hereinafter provided. (See Part IV).

(e) In any case in which the hydraulic test is not satisfactory the defects should be made good and the boiler retested to the satisfaction of the Inspector before a certificate is granted.

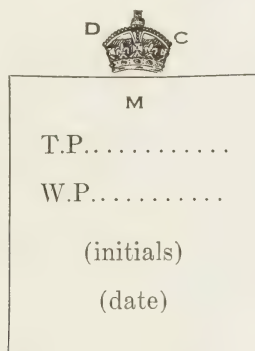
(f) For the purposes of the hydraulic test the owner of the steamship inspected shall provide the necessary pump and apparatus connected up complete, with all labour required.

(g) All regulations in regard to examination and testing of boilers shall apply to superheaters, steam chests, evaporators, etc.

Canada Shipping Act—continued

(h) Inspectors will be careful during and after hydraulic test to make observations, take measurements, etc., as would be required to discover if any distortion or failure has taken place.

12. (a) If the Inspector after completing the inspection of a new boiler (including the internal inspection after hydraulic test) is fully satisfied that the statutory regulations and requirements have been in all respects complied with, and that the boiler is safe and satisfactory, he should see it stamped in the following manner—the pressure, date, register number and initials of the Inspector being those applicable to the particular case:



(Reg. number)

(b) The marks in the case of a single ended boiler should be stamped on a conspicuous part of the front end plate near the fire door on the right hand side, double ended boilers being similarly marked at both ends and vertical cylindrical boilers on a conspicuous part of the shell immediately above the fire door. If, however, the casing for forced draught or other fittings would prevent them being readily seen when placed on the end plate, the marks may be stamped on the right hand side of the shell plate, near the end plate and in such a position that they will not be hidden by the lagging.

13. A pressure once allowed on a boiler is not under any circumstances whatever to be increased, unless the Inspector has previously written for and obtained the sanction of the Chairman. In cases where an Inspector is of the opinion that an increased pressure may with safety be allowed he should communicate with the Inspector who last inspected the boiler, and if on learning why the existing pressure was given, he is still of the opinion that it may be increased, he should communicate all the facts of the case to the Chairman.

14. When making examination of the cylinders, pistons, connecting rods, shafting and other principal parts of the main engines whether new work, or in the case of engines coming under inspection for the first time, Inspectors are to assure themselves by careful examination, and by calculations where necessary, that the parts are sufficient for the purpose intended, that they are of proper material, free from flaws or defects and that they are fitted and secured in a proper workmanlike manner. Should he deem it necessary an Inspector may demand a test under hydraulic pressure for the purpose of assuring himself in regard to cylinders or condensers, etc. (See also Sec. 23, Part III of these regulations).

Canada Shipping Act—continued

15. (a) Inspectors should pay particular attention to the examination and testing of steam pipes and a record of the tests should be kept in the office record book.

New steam pipes of copper or wrought iron or steel whether for steam, feed or other purposes, subject to internal pressure shall be allowed a pressure found from calculations in accordance with the formulae and general directions set out in Part VI of these regulations, provided that the workmanship and material is found to be first class of its kind, and satisfactory for the purpose for which intended, and shall be subjected to hydraulic test as required in that Part.

(b) As regards old pipes, the Inspector may at any time he thinks it necessary before issuing a certificate require them to be tested by hydraulic pressure to satisfy himself as to any doubtful part or parts and he may also require the removal of any such pipes in order that their interior may be examined and their actual thickness and condition ascertained. An Inspector may also require that copper main steam pipes or other copper pipes, failure of which would be liable to be a serious menace to human life, be annealed from time to time as may appear necessary. As serious accidents have taken place, apparently due to improper methods of annealing, brazing, etc., Inspectors should, when such work has to be done on important pipes, keep special supervision and take every precaution to assure themselves that the work has been properly done. Steam pipes should, however, be tested periodically to twice the maximum working pressure, as follows:

MAIN STEAM PIPES

- (c) 1. All copper pipes having brazed longitudinal seams, whether complete range or only part of a range of pipes should, with the exception of those referred to in sub-paragraph 3 below, be examined and tested, with the lagging removed, at least once in every four years.
2. Iron, steel, or solid-drawn copper pipes should, when the diameter exceeds three inches, be stripped and tested by hydraulic pressure at least once in six years.
3. In the case of pipes with a diameter of 3 inches or less, the Inspector may use his own discretion as to the removal of the lagging for more than a few inches near each flange when the hydraulic test is applied.

NOTE.—Main steam pipes include the main range and its branches from the various boilers and those to the propelling machinery, also all steam pipes joining two or more boilers together.

AUXILIARY STEAM PIPES HAVING AN INTERNAL DIAMETER EXCEEDING SIX INCHES

- (d) 1. Copper pipes having brazed longitudinal seams should be stripped and tested by hydraulic pressure at least once in every four years.
2. Iron, steel, or solid-drawn copper pipes should be stripped and tested by hydraulic pressure at least once in six years.

Canada Shipping Act—continued

AUXILIARY STEAM PIPES HAVING AN INTERNAL DIAMETER EXCEEDING THREE INCHES AND NOT EXCEEDING SIX INCHES

- (e) 1. Copper pipes having brazed longitudinal seams should be stripped for not less than 2 inches at each flange and tested by hydraulic pressure at least once in every four years.
2. Iron, steel, or solid-drawn copper pipes should be stripped for not less than 2 inches at each flange and tested by hydraulic pressure at least once in six years.

GENERAL

(f) In all cases where the pipes are not wholly stripped, the hydraulic test pressure should remain on the pipes for such reasonable time as the Inspector considers necessary. Any length from which leakage is observed at other places than the flanges should be stripped, repaired and re-tested.

The foregoing instructions apply to all steam pipes, the bursting of which would probably cause loss of life or serious injury, but it is not expected that the Inspectors will insist on the testing of small pipes from which the free outflow of steam would cause no danger or inconvenience and which would not easily burst in any circumstances.

When a vessel is inspected for a certificate after transference from a foreign flag, or for the first time, all the steam pipes should be tested as indicated in these instructions.

NOTE.—For rules for finding the working pressure of pipes subject to internal pressure see Part VI of these regulations.

16. (a) Evaporators, generators, feed make-ups, etc., where water is evaporated under pressure should be considered the same as steam boilers by whatever means evaporation is effected and they should be examined by the Inspector on each occasion a steamship is inspected for a certificate in the same manner as boilers, and particulars regarding them, their safety valves, etc., should be recorded in the same manner as for boilers.

(b) The mountings, etc., for evaporators should, as a general rule, be similar to those required for boilers on board steamships but a single safety valve may be allowed provided it is of sufficient size.

As regards the design and construction of evaporators, etc., and their mountings, the attention of Inspectors is called to Section 25, Part III of these regulations.

NEW CONSTRUCTION, PLANS TO BE SUBMITTED, REPORTING DEFECTS

17. (a) Before construction is begun on the main boilers or propelling machinery of a steamship intended to be certificated under the provisions of the Canada Shipping Act, full detailed plans in triplicate, properly dimensioned, giving all particulars necessary regarding material used, tensile strength of material, etc., are to be submitted by the builders for the information of the Inspectors concerned or of the Board where deemed necessary.

(b) The foregoing is to apply with regard to all new steamships or steamships in which extensive alterations, repairs or renewals are made.

(c) In the case of steamships already constructed and coming under inspection under the provisions of the Canada Shipping Act for the first time full detailed plans and information as above must be submitted before a certificate of inspection is granted.

Canada Shipping Act—continued

(d) If in any case it appears to the Board that good and sufficient reason exists for the non-production of plans, as might be if a ship had been built outside Canada or where no record of the plans had been preserved the whole matter must be submitted for the decision of the Board who before authorizing the issue of a certificate may require the production of all such evidence as in the circumstances shall be sufficient to determine the strength and suitability of the various parts, and the workmanship and material thereof.

18. (a) No boiler mountings hereinafter fitted shall be accepted by an Inspector except such as have been approved by the Board, and manufacturers, shipbuilders or others concerned who desire such approval will be required to furnish the Board with detailed plans of all such mountings sufficient to allow of a proper opinion being formed as to their strength, and suitability for the purpose for which intended.

(b) The Board may also require that plans and specifications of independent auxiliaries shall be submitted for examination and may order Inspectors to refuse to accept such auxiliaries if not approved by the Board.

19. (a) An Inspector shall not declare the boilers or machinery of a steamship safe unless he is fully informed as to their construction, material and workmanship. Inspectors shall, therefore, refuse to issue a certificate to a new steamship or to a steamship coming under Canadian inspection for the first time unless during the construction of the boilers and machinery they have been inspected by a Canadian Government Inspector, or, in the case of boilers and machinery constructed in the United States of America, by an exclusive surveyor to Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the Bureau Veritas International Register for the Classification of Shipping, or the American Bureau of Shipping.

Such inspection during construction shall only be deemed adequate if examination has been made at such various periods during construction as shall be sufficient to allow of a proper opinion being formed as to the methods of construction employed, workmanship, suitability of material, etc.

(b) However, should occasion arise where a steamship is brought under inspection for the first time not having had the boilers and machinery inspected during construction, the whole case must be referred for the decision of the Board.

20. Inspectors are to be most careful not to give any official sanction to any new or unusual arrangement or construction of marine engines, boilers or fittings, without first obtaining the permission of the Chairman, nor should they give any written approval of any arrangement or invention except by direction of the Chairman; and whenever they know that any boiler, or other apparatus, of novel arrangement is to be fitted in a vessel that is intended to have a certificate, they should, as soon as possible, with a view to preventing subsequent delays and questions, obtain plans of it and submit them for the consideration of the Board.

When any deviation from an approved plan is made, full particulars thereof should be submitted for the Board's consideration, and when any deviation is sanctioned, it is only for that particular case, unless otherwise stated.

Canada Shipping Act—continued

21. A certificate should not be granted for a vessel in which liquid fuel is to be used without previously submitting the case for the Board's consideration. In all cases in which it is intended that such fuel should be used on board steamships, a full description of the fuel and of the apparatus for supplying it to the boilers and of the method and place proposed for stowing it should be given. Complete drawings should be supplied by the owners, so as to enable the Board to decide whether the arrangements are such as can be considered reasonably safe to be passed by the Inspector.

The attention of Inspectors is called to Section 8 of Part VII of these regulations dealing with the design and construction of oil fuel tanks, it being noted that whilst that section is intended, in general, to apply to tanks fitted in connection with internal combustion engines, it shall have effect likewise in regard to fuel tanks, not forming part of the ship's structure, where the motive power is obtained from oil-fired boilers. Funnel dampers are forbidden when liquid fuel is used. (See Section 18, Part III.)

22. If any engine, boiler, apparatus or fitting or any part thereof, which has been made to a design submitted for consideration proves unsatisfactory or defective, during manufacture or in use, before the first certificate is granted, full particulars of such defects, and of any proposal which may be made to remedy them, should be obtained and reported by the Inspector with as little delay as possible.

23. (a) In the case of vessels, new or old, in which it is proposed to fit arrangements for superheating the steam, full particulars of the proposed superheater and steam pipes should be submitted for the consideration of the Board with as little delay as possible, and in no case should a certificate be issued until the arrangement has been sanctioned.

(b) Superheaters shall be constructed and fitted with mountings in accordance with the instructions contained in Section 24, Part III of these regulations. Superheaters which can be shut off from the main boilers shall be fitted with an approved safety valve of sufficient size, not less than 2" diameter unless the Board has approved of a valve of less diameter. Where there is a possibility of water gathering in the bottom of a superheater it shall be fitted with a properly arranged drain.

24. (a) A certificate shall not be issued for a steamship in which the boilers are made of steel, unless the material entering into their construction, plates, bars, etc., has been inspected and tested as set out in Part II of these regulations and has the physical and other characteristics as required in that Part, and unless all such plates, bars, etc., are stamped with the maker's name or trade mark and with a number or identification mark such that the charge of steel from which made can be readily identified, and they shall be stamped in addition to show the results of any tests made on them.

In addition an Inspector shall require properly authenticated test sheets as hereafter provided, to show tests made and the results thereof.

Where in any case iron plates are used in the construction of a boiler these shall be stamped with the name or mark of the maker thereof.

(b) Important parts of the main engines such as forgings for shafts, connecting rods, etc., when made of steel shall also be inspected and tested as hereafter set out and stamped with a number or identification mark such that the charge of steel from which made can be readily identified, and properly authenticated test sheets as hereafter provided for showing tests made and the results thereof shall be provided as in the case for boiler plate.

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(c) The requirements as regards marking of engine forgings and the production of test sheets therefor are intended to have reference to the main forgings in large engines in ships going beyond the limits of sheltered waters but in any case the Inspector shall assure himself by examination that the material is sound, free from flaws or defects and suitable for the purpose for which intended. (See Sections 14 and 24, Part II.)

The Board shall have power in any general or particular case to determine the limits as regards sizes of engine, route of ship, etc., in which tests of forgings shall be required.

(d) Notwithstanding anything hereinbefore set out an Inspector may, if he deem it advisable, require facilities to be given for testing any material entering into any part of the construction of the main boilers or machinery of a steamship to be certificated.

25. Before a certificate be granted with respect to any boiler, a declaration on oath by the maker of the boiler, stating the name of the maker of the plates, their quality and the quality of all materials used in the construction of the boiler, shall be furnished the Inspector. Such oath may be taken before any Justice of the Peace in Canada, or before a Notary Public, and certified under his official seal, if taken out of Canada: Provided always, that in any case where such declaration on oath by the maker of the boiler cannot be obtained owing to the death of the maker, or from other cause deemed sufficient by the Board, the affidavit of two competent persons who have examined the boiler and reported upon the quality of the materials in it and the workmanship and strength, shall, if satisfactory to the Board, be deemed sufficient in lieu of such declaration by the maker of the boiler.

PUMPS, MEANS TO PREVENT FLOODING, PLATFORMS, ETC.

26. (a) Every steamship shall be provided with at least two pumps for supplying the boilers with feed water, and they shall be of such capacity and so arranged independent of each other that either shall be capable when working at normal speed of supplying the boilers, and that either can be overhauled whilst the other is at work. When these pumps are driven direct off the main engine it will be sufficient as far as overhauling is concerned if the arrangement is such as to allow the valves in either pump to be examined and overhauled while the other is at work.

(b) When the engines are in excess of 70 *nominal horse-power* the pumps for feeding the boilers shall be used exclusively for feed purposes.

(c) When the engines are not in excess of 70 *nominal horse-power* there shall be at least one pump exclusively for feeding the boilers and the auxiliary feed may be a general service pump, arranged to draw from the hot-well and from the sea, which shall not be connected to the bilge lines.

(d) The main feed pumps may be driven off the main engines or by independent engines but in the latter case they shall be fitted with proper automatic speed regulators and where the main feed pumps are driven off the main engines there shall be in addition a suitable pump of ample capacity by which the boilers can be fed when the engines are not in motion. This may be a general service pump but must not be connected to the bilge lines.

(e) An efficient relief valve (or valves) suitably adjusted and such as cannot be readily overloaded, shall be fitted in the feed system, on feed

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pipes, filters or heaters, as may be required, so that the pressure in the feed system, under any circumstances likely to occur, may not be more than 20 per cent in excess of the boiler pressure.

Where the main feed pumps are independent of the main engines the area of the relief valve (or valves) should, generally speaking, be not less than half that of the feed discharge pipe, provided the latter is sufficient to ensure a reasonable velocity of flow in the pipe. Where the main feed pumps are worked direct off the main engines the area of the relief valve or valves shall be at least the same as that of the feed pipe.

(f) Where in any steamship a boiler not in excess of 10 feet in diameter of the cylindrical multitubular return tube type, or a boiler of similar evaporative capacity is fitted, the auxiliary feed may be an approved injector of sufficient capacity fitted and arranged as required under Section 5 Part V of these regulations.

(g) Where the engines are not in excess of 30 *nominal horse-power* the requirements as regards automatic speed control of independent pumps, and relief valves in the feed system, connected to independent pumps, need not be insisted upon if in the opinion of the Inspector the arrangement otherwise is safe and suitable. But relief valves must be fitted when the pumps are driven off the main engines.

27. (a) Every steamship must be provided with adequate means for ridding the bilges of water, and Inspectors shall see that, having due regard to the size of the ship, the nature of the voyages she is to be employed on, etc., proper provision is made accordingly.

The bilge pumps or equivalent shall be in duplicate and such that either set can be overhauled whilst the other is at work.

(b) When the engines are in excess of 70 *nominal horse-power* the bilge pumps or equivalent must be used for that purpose exclusively.

But when the engines are not in excess of 70 *nominal horse-power* there shall be one bilge pump or equivalent exclusively for that purpose and the auxiliary may be a general service pump which shall not be connected to feed the boilers.

(c) In all cases provision must be made for ridding the bilges of water when the main engines are not in motion.

28. A non-return valve having a screw spindle, not attached, by which the valve may be set down on its seat when necessary, should be fitted to all pipes which are so led or placed that water could, unless such non-return valves were fitted, run from the boiler or the sea into the bilges either by accidentally or intentionally leaving a cock or valve open, except where water must be admitted to the ship as for slaking ashes, when there must be a cock or valve on the ship's side, fitted above the stoke-hold plates or platform and easily accessible.

29. (a) All inlets or outlets in the bottom or side of a ship near to, at or below the deep-load water line other than the outlets of watercloset, soil, scupper, lavatory and urinal pipes, should have cocks or valves fitted between the pipes and the ship's side or bottom; such cocks or valves should be attached to the skin of the ship, and be so arranged that they can be easily and expeditiously opened or closed at any time; and the cocks, valves and the whole length of the pipes should be accessible at all times.

(b) Except as provided in the following section, the chests of such valves may be cast iron, if of strong ample section, but the valve seats, valve discs, valve spindles and the glands and bushings for them shall be

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bronze. Generally speaking, cocks fitted to the ship's side should be bronze throughout, but if it be desired to have the bodies of cast iron this need not be objected to provided they are of ample section and are fitted with substantial bronze linings, the plugs and glands being bronze. All such valves or cocks should be distinctly marked to show the direction of opening or closing.

(c) Although in the case of ships for which certificates have already been granted it is very desirable that the above cocks and valves should be so arranged that they could be opened and closed expeditiously by hand, and that the whole range of pipes in connection with them should be visible at all times, a strict compliance with the above may be dispensed with if there is difficulty in attaining this object, provided that after the matter has been submitted to the Board it appears that the difficulty is serious and that the arrangements existing are on the whole safe.

30. Cocks or valves standing at exceptional distance from the ship's plating, that is, where the necks are longer than is necessary for making a joint, should not be passed without the approval of the Board, and one condition of their being passed is that they should be made of gunmetal and well bracketed.

31. When arrangements are made for circulating the water in the boilers by means of a donkey pump, provision shall be made in the way of a cock, preferably near the pump, to prevent the escape of water from the boilers through the pump, and the cock so fitted shall have a spanner and guard similar to a ship's side blow-off cock, the handle or spanner of the cock to be above the platform.

32. The exhaust from auxiliaries should not be led through the ship's side but should be led on deck or into the main waste steam pipe and proper provision should be made for draining.

33. An escape of ammoniacal gas such as may follow the breakdown of a refrigerating machine using anhydrous ammonia is liable to cause personal injury and may render the compartments in which the machine is placed untenable. Such a machine should be placed in a well-ventilated, isolated compartment, preferably on deck. A refrigerating machine, however, working on the absorption system using an aqueous solution of ammonia may be placed in the engine room provided the machine has been constructed under inspection as approved by the Board in accordance with an approved design and that the engine room is satisfactorily ventilated. In the latter case the machine should be periodically inspected by an Inspector.

The escape of a moderate quantity of carbon dioxide gas from a carbonic anhydride refrigerating machine is not liable to cause personal injury if the machine be fitted in a space not unduly confined and fairly well ventilated, and such a machine may be placed in the engine room if the charge which might be released by the breakdown of the machine, or of one portion in the case of a duplex machine, does not exceed 300 pounds. In case of doubt the Inspector should submit full particulars for the consideration of the Board.

34. All engines shall be fitted with proper relief valves, drains, etc., drains, starting and manoeuvring gear being so arranged as to be capable of being operated from a convenient position and close together, and in addition proper gratings, platforms, ladders, etc., in sufficient number and

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properly placed and guarded shall be fitted in the engine and boiler rooms as may be required for proper control and examination while a ship is under way. (See also Sec. 23, Part III of these regulations.)

35. Efficient means shall be provided for draining all steam pipes, and boiler stop valves must not be accepted as fulfilling this purpose. All drain cocks or valves should be accessible, and so placed as to render it practicable to drain the water from any portion of the steam pipes or chests in connection therewith. Drain pipes should be fitted to drain cocks or valves, when the latter are in such a position that water or steam discharged from them would be liable to cause personal injury. It is desirable that the drains should be automatic in their action.

36. Fittings on main and auxiliary steam pipe lines such as intermediate stop valves, reducing valves, elbows, etc., shall be strongly constructed and of ample design and sufficient in every way to meet the conditions which may arise with the ship at sea, and when above 2" diameter size shall have flanges for making connections. The chests of such valves and such pipe fittings may be of cast iron when used for saturated steam only but when steam of a temperature of 425 degrees Fahrenheit or over is used they must be of cast steel or other material approved by the Board.

When giving consideration to such valves or fittings inspectors shall have due regard to the results to be expected in case of failure, not only as concerns the safety of those in the engine room or boiler room, but as concerns the danger which would arise when a ship is not under control.

37. Socket expansion joints shall have the parts subject to rubbing action made of brass or other approved metal which will not rust.

In all cases when such a joint is fitted to a bent steam pipe, provision shall be made, by having a fixed gland with bolts, or other equally efficient means to prevent the end of the pipe being forced out of the socket. It is desirable that similar arrangements be made even when socket expansion joints are fitted to straight steam pipes especially when these are of small size.

A socket expansion joint on a bent pipe is not a desirable arrangement and when adopted the pipe should be anchored or provided with a strut at the bend, to relieve it of any undue bending stresses which might otherwise be produced by the internal pressure on a surface equal to the area of the pipe.

38. In the case of steamships performing ocean voyages a certificate should not be given unless, having due regard to the type of engines fitted, the number of engines and boilers, nature of the voyages to be performed, etc., sufficient spare gear, material for making repairs, engineers' tools, etc., are carried and in case of doubt the matter shall be referred to the Board for a decision.

PART II

TESTS OF MATERIAL

1. (a) As set out in Part I of these regulations, steel to be used in the construction of boilers, and for the making of forgings and castings to be used in the construction of engines and machinery, is required to be tested so that a proper opinion may be formed as to its strength and suitability for the purpose for which intended.

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(b) An Inspector shall not give a certificate of inspection to any steamship the boilers and machinery of which are in whole or in part constructed of material not tested as required by these regulations.

(c) It shall be the duty of the shipowner, shipbuilder, boiler or engine maker as the case may be, to arrange for the tests hereafter prescribed, and such tests shall not be deemed to be in compliance with these regulations unless witnessed by an Inspector appointed under the provisions of Part VII of the Canada Shipping Act or otherwise as provided in this Part of these regulations.

2. (a) Every plate, angle and bar shall be clearly and distinctly marked by the maker in two places, with a brand, mark or name, and with such numbers or marks as, in conjunction with a proper system of marking billets, slabs, etc., will ensure that the finished material may be traced to its original source, and in addition every plate, bar or angle shall be marked so as to show the results of tests made thereon.

(b) Certificates showing the quality of the steel and test sheets duly signed by the Inspector showing the result of tests witnessed by him as hereafter required are to be supplied by the steelmakers and produced on demand of the Inspector who will be responsible for issuing the final certificate for a boiler. Such certificates and test sheets shall be so made up as to assure that the plates, bars, etc., to which they refer can be conveniently identified.

(c) Plates for boiler shells shall be so marked that when worked into the boiler the marks can be distinguished and boiler makers shall so arrange in laying out the work that after the boiler is finished the marks are readily distinguishable and the same shall be the case with other parts of the boiler as far as practicable.

(d) Parts such as furnaces usually received by the boiler makers in the completed state shall be so made up that the marks, test results, etc., hereinbefore required shall be plainly visible when worked into the boiler and certificates and test sheets as required above in this subsection shall be provided with each furnace or such part so that full particulars regarding the maker of the steel, its quality and the results of tests made thereon, shall be readily available.

(e) All important steel forgings should be marked so that when finished they can be properly identified as to the tests to which they have been submitted, and as to whether they are suitable for the purpose for which intended, and test sheets and certificates as described in paragraph (b) above must be provided for the information of the Inspector responsible for the issue of a certificate for the machinery of any steamship.

(f) All important steel castings should be marked so that when finished they can be properly identified as to the tests to which they have been submitted and as to whether they are suitable for the purpose for which intended and test sheets and certificates as described in paragraph (b), above must be provided for the information of the Inspector responsible for the issue of a certificate for the machinery of any steamship.

3. Unless all the requirements as hereinbefore set out in the preceding sections of this Part are complied with and unless the certificates and test sheets herein described are in the possession of an Inspector, it shall be deemed that the steel for any boiler, or forging or casting, for an engine, has not been tested and a certificate for that boiler or engine shall be refused accordingly.

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4. (a) Steel to be used in the construction of boilers or for the making of forgings or castings for important parts of engines or machinery and subject to test under these regulations, shall only be accepted when made by steel makers approved by the Board.

(b) Steel for marine boilers or for forgings for machinery shall be made by the open hearth process, acid or basic. In the case of castings the steel may be made by any process approved by the Board.

BOILER MATERIAL, STEEL PLATES, RIVETS AND BARS

5. The finished material shall be free from cracks, surface flaws and lamination, it shall also have a workmanlike finish and must not have been hammer dressed.

6. (a) The following tests and inspection of steel to be used in the construction of boilers shall be made, preferably at the place of manufacture prior to despatch, but in the event of any of the material proving unsatisfactory in the course of being worked into the boilers such material shall be rejected notwithstanding any previous certificate of satisfactory testing, and such further tests of material from the same charge may be made as the Inspector may consider desirable.

(b) The Inspector should carefully examine the inner and outer surfaces of all cylindrical shell plates with a view to detecting cracks while the plates are being worked into the boilers. If he has any doubt about a part a light chipping should be taken off the surface in order to see if the chipping divides at a crack. Plates which have been flanged should also be carefully examined for defects or punishment of the material at the flange, and if doubt exists as to whether they have been annealed, and if so, properly, they should be tested by receiving heavy hammer blows.

7. (a) The tensile strength and ductility of plates, etc., shall be determined from standard test pieces cut lengthwise or crosswise from the rolled material, and when the material is annealed or otherwise treated before despatch the test pieces shall be similarly and simultaneously treated with the material before they are tested.

(b) Wherever practicable the rolled surfaces shall be retained on two opposite sides of the test piece.

(c) For material more than $\frac{7}{8}$ inch in thickness the width of the test piece between the gauge points shall not exceed $1\frac{1}{2}$ inches; for material $\frac{7}{8}$ inch to $\frac{3}{8}$ inch in thickness inclusive, the width shall not exceed 2 inches, and for material less than $\frac{3}{8}$ inch in thickness the width shall not be more than $2\frac{1}{2}$ inches. In other respects the test pieces shall be as shown at figure A in the Appendix to this Part of these regulations.

(d) The elongation shall be measured on a standard test piece having a gauge length of 8 inches.

(e) The tensile breaking strength of steel plates for boiler shells and girders, determined from the standard test pieces shall be between the limits of 27 tons and 35 tons per square inch, but a range of not more than 4 tons per square inch shall be permitted in any one case.

For plates intended for flanging or welding, and for combustion chambers and furnaces, the tensile breaking strength shall be between the limits of 26 tons and 30 tons per square inch.

The elongation measured on a standard test piece having a gauge length of 8 inches shall be not less than 20 per cent for material of $\frac{3}{8}$ inch thick-

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ness and upwards required to have a tensile breaking strength between the limits of 27 tons and 35 tons per square inch; and for material of $\frac{3}{8}$ inch in thickness and upwards required to have a tensile breaking strength between the limits of 26 tons and 30 tons per square inch, the elongation similarly measured shall be not less than 23 per cent.

(f) Round bars may be tested full size as rolled, or they may be turned down to a convenient size, and if tested 1 inch in diameter or under, the piece shall have a gauge length of 8 times the diameter. When enlarged ends are used the length of the parallel portion shall be 9 times the reduced diameter. (See standard test piece B in the Appendix.) The sectional area of the test piece shall be not less than $\frac{1}{4}$ square inch.

Where bars are above 1 inch in diameter and are tested full size as rolled, or have been turned down and the resulting test piece is above 1 inch in diameter, a gauge length of 4 times the diameter may be used, in which case an increased elongation will be required as specified in paragraph (g). When enlarged ends are used the length of the parallel portion shall be not less than $4\frac{1}{2}$ times the reduced diameter. (See standard test piece F in the Appendix.)

(g) The tensile breaking strength of longitudinal stays shall be between the limits of 27 tons and 35 tons per square inch, with an elongation of not less than 20 per cent measured on the standard test piece B in the Appendix, but a range of not more than 4 tons per square inch shall be permitted in any one case. For steel bars for combustion chamber stays the tensile breaking strength shall be between the limits of 26 tons and 30 tons per square inch with an elongation of not less than 23 per cent measured on the standard test piece B shown in the Appendix.

Where stay bars are tested on a gauge length of 4 times the diameter (test piece F) the elongation shall be 24 per cent and 28 per cent respectively.

(h) The tensile breaking strength of angle and tee bars shall be between the limits of 27 tons and 32 tons per square inch with an elongation of not less than 20 per cent measured on the standard test piece A in the Appendix.

(i) For material, plates, bars, etc., under $\frac{3}{8}$ inch in thickness the elongation may be 3 per cent, but not more than 3 per cent, below the above mentioned elongations. Wherever practicable the rolled surfaces shall be retained on two opposite sides of the test piece.

(j) The tensile breaking strength of rivet bars shall be between the limits of 26 tons and 30 tons per square inch with an elongation of not less than 25 per cent measured on the standard test piece B, or 30 per cent measured on the standard test piece F. The bars may be tested the full size as rolled.

8. All test pieces shall be selected by the Inspector and tested in his presence, and he shall satisfy himself that the conditions hereunder described are fulfilled. Any straightening of test pieces which may be required shall be done cold.

9. (a) One tensile test shall be taken from each plate as rolled. For plates exceeding $2\frac{1}{2}$ tons in weight one tensile test shall be taken from each end.

(b) One tensile test shall be made from each 15 or part of 15 angle, tee, rivet or stay bars rolled of each section of diameter from the same charge, but not less than two tensile tests shall be made unless the total number of bars rolled from the same charge is 8 or less than 8 and the

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bars are of the same section or diameter, in which case one tensile test will suffice. For round bars of $1\frac{3}{4}$ inches diameter and under, the numbers 50 and 20 shall be substituted for 15 and 8, respectively, for determining the number of tests required.

(c) Should a tensile test piece break outside the middle half of its gauge length, the test may, at the maker's option, be discarded and another test be made of the same plate or bar.

10. (a) Test pieces for cold bend tests shall be sheared lengthwise, or crosswise from plates or bars, and shall not be less than $1\frac{1}{2}$ inches wide, but for small bars the whole section may be used. For rivet bars bend tests are not required.

(b) The test pieces for temper bends shall be similar to those used for cold bend tests. For temper bend tests the samples shall be heated to a blood-red colour and quenched in water at a temperature not exceeding 80 degrees Fahrenheit. The colour shall be judged indoors in the shade.

(c) In all cold bend tests, and in temper bend tests on samples 0.5 inch in thickness and above, the rough edge or arris caused by shearing may be removed by filing or grinding, and samples 1 inch in thickness and above may have the edges machined, but the test pieces shall receive no other preparation. The test pieces shall not be annealed unless the material from which they are cut is similarly annealed, in which case the test pieces shall be similarly and simultaneously treated with the material before testing.

(d) For both cold and temper bends the test piece shall withstand, without fracture, being doubled over until the internal radius is equal to $1\frac{1}{2}$ times the thickness of the test piece and the sides are parallel. For small sectional material these bend tests may be made from the flattened bar.

(e) Bend tests may be made either by pressure or by blows.

11. (a) A cold or a temper bend test shall be taken from each plate as rolled. For plates exceeding $2\frac{1}{2}$ tons in weight one bend test shall be taken from each end.

(b) The bend tests from shell plates, butt straps and other plates which have not to be flanged or worked in the fire or which when in use are not to be exposed to flame are to be cold bend tests. The bend tests from plates which have to be flanged or worked in the fire or which when in use will be exposed to flame are to be temper bend tests. In the case of shell plates permitted to have a tensile strength above 34 tons per square inch one temper bend test must be made in addition to the cold bend above specified in the case of each plate which is above 34 tons per square inch.

(c) A cold or a temper bend test shall be made from each angle bar rolled.

(d) A cold and a temper bend test shall be made from every 15 stay bars as rolled from each charge.

12. Rivets selected by the Inspector from the bulk shall withstand the following tests:—

(a) The rivet shanks are to be bent cold, and hammered until the two parts of the shank touch, without fracture on the outside of the bend.

(b) The rivet heads are to be flattened, while hot, in the usual manner, without cracking at the edges. The heads are to be flattened until their diameter is $2\frac{1}{2}$ times the diameter of the shank.

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13. Should the test pieces first selected by the Inspector not fulfil the test requirements, two further tests of the same kind may be made, but should either of these fail, the plates or bars from which the test pieces were cut shall be rejected. In all such cases further tests shall be made before any material from the same charge can be accepted.

STEEL FORGINGS

14. (a) At least one tensile and one bend test should be taken from each forging; but, if the weight exceeds three tons, a tensile and a bending test should be taken from each end.

(b) The tensile strength of steel forgings should not exceed 40 tons per square inch; and the elongation, measured on the appropriate standard test piece C, D or E in the Appendix to this Part of these regulations should be not less than 17 per cent for 40 ton steel; and in no case may the sum of the tensile strength in tons and the corresponding percentage of elongation be less than 57.

(c) The bending test pieces should withstand being bent without fracture through an angle of 180 degrees, the internal radius of the bend being not greater than that specified below:—

Maximum specified tensile strength of forging	Internal radius of test piece after bending
Up to 32 tons per square inch.....	$\frac{1}{4}$ inch
Above 32 tons and up to 36 tons per square inch.....	"
Above 36 tons and up to 40 tons per square inch.....	"

(d) The forgings should be made from sound ingots, and not more than the lower two-thirds of the ingot may be utilized for forging. The sectional area of the body of the forging may not exceed one-fifth of the sectional area of the original ingot; and no part of the forging should have more than two-thirds of the sectional area of the ingot. All ingot steel forgings should, after completion, be thoroughly annealed at a uniform temperature; and if any subsequent heating is done the forging should, if required by the Inspector, be again annealed.

(e) In all cases the selection of the test pieces is to be made by the Inspector and they should not be cut off the forgings until they have been stamped by the Inspector after annealing has been completed, it being noted that for any material which is annealed or otherwise heat treated the test pieces should be similarly and simultaneously treated with the material before they are tested.

(f) The test pieces from forgings should be taken from a part of the forgings of sectional dimensions not less than those of the body of the forging, and they should be machined to size without further forging down.

(g) When a number of articles are cut from one forging the number of tests required should be the same as that required from the original piece, provided the articles have not been further heated or forged and can be identified as having formed part of the original piece. When a number of small forgings are made from the same ingot the full number of tests specified in this section need not be made, tensile and bending tests at the rate of one of each for every four articles will, as a rule, in such cases be sufficient.

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STEEL CASTINGS

15. (a) No tests need be made from unimportant steel castings or from steel castings which are used for articles usually made of cast iron, if the scantlings are not materially reduced below what would be required if cast iron were used. All other steel castings should be tested as follows:

(b) At least one tensile and one bending test should be made from the castings from each charge; and, where a casting is made from more than one charge, at least four tensile and four bending tests should be made from pieces cast as far apart as possible on the casting, and as near the top and the bottom, respectively, as practicable.

(c) Where more than one casting is made from one charge, at least one tensile and one bending test should be made from the castings run from one common pouring head; but separate tests should be made from each casting or set of castings run from each separate pouring head. When a number of small castings are made from the same charge of steel, the full number of tests specified hereafter need not be made; tensile and bending tests at the rate of one of each for every four articles will, as a rule, in such cases be sufficient.

(d) The tensile strength may range from 26 to 40 tons per square inch, with an elongation, measured on the standard test piece C, D or E of not less than 15 per cent. If, however, the castings are to be used for the more important pieces of machinery, such as pistons, etc., or for articles usually made of wrought material, the elongation should not be less than 20 per cent where the corresponding tensile strength is between 26 and 35 tons per square inch.

(e) The bending test pieces should withstand being bent, without fracture, through an angle of 60 degrees if the tensile strength is between 35 and 40 tons per square inch, and, in the case of other castings, through an angle of 90 degrees, but, if they are required to be of the superior quality previously referred to, the angle should not be less than 120 degrees.

The internal radius of the bend in each case should not be greater than one inch.

(f) All steel castings should be thoroughly annealed at a uniform temperature, and should be allowed to cool down prior to removal from the annealing furnace; and, if subsequently heated, with the Inspector's approval, should again be similarly annealed if required by the Inspector.

(g) Test pieces shall not be cut from castings until they have been stamped by the Inspector after the annealing has been completed, they shall be selected by the Inspector and if the castings from which they are taken are annealed or otherwise heat treated the test pieces should be similarly and simultaneously treated with the material before they are tested.

SPECIAL IRON FOR SCREWED STAYS FOR COMBUSTION CHAMBERS

16. (a) The tensile breaking strength shall not be less than $21\frac{1}{2}$ tons per square inch with an elongation of not less than 25 per cent measured on the standard test piece B or of 30 per cent measured on the standard test piece F.

(b) Test pieces either of the bar as rolled, or turned down to 1 inch diameter, shall stand bending cold until the sides are parallel and the space between the two sides is not greater than the diameter of the test piece.

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(c) The bars as rolled are to be placed in batches of 20 and one tensile test is to be taken from each batch. If this is unsatisfactory, two other bars are to be selected for test, but should either of these fail the batch is to be rejected.

(d) One ordinary bend test is to be taken from each batch and a similar test piece from each batch is to be lightly and evenly nicked on one side with a sharp cutting tool and bent back at this point through an angle of 180 degrees by pressure or by a succession of light blows. The fracture must be clean, fibrous, free from slag or dirt or any coarse crystalline structure. If either of these is unsatisfactory two other bars are to be selected for test, but should either of these fail the batch is to be rejected.

(e) In all cases the selection of the test pieces is to be made by the Inspector.

(f) The above tests shall be recorded and test sheets and certificates produced on demand as required in Section 2 of this Part for steel entering into the construction of boilers.

BOILER TUBES

17. Whilst for ordinary wrought iron boiler smoke tubes no special tests are required, yet when these tubes are of steel, tests as follows should be made,—

(a) For solid drawn boiler tubes subject to internal pressure the makers should take a few samples from each batch of tubes and test them for tensile strength and elongation, bending tests should also be made by them from the scrap end of each tube drawn.

Tensile and bending tests should also be made in the Inspector's presence from specimens selected by him in the following proportion, from the tubes made from each charge:—

Tubes up to and including 3 inches in diameter; 1 in 40 or part thereof.

Tubes above 3 inches up to and including 4 inches in diameter; 1 in 20 or part thereof.

Tubes above 4 inches up to and including 5 inches in diameter; 1 in 10 or part thereof.

Tubes above 5 inches up to and including 7 inches in diameter; 1 in 6 or part thereof.

Tubes above 7 inches in diameter; 1 in 4 or part thereof.

The tensile strength should range between 23 and 30 tons per square inch, but the lower limit 23 tons need not be insisted upon if the material be otherwise satisfactory. The elongation should not be less than 20 per cent in a length of 8 inches or 18 per cent if the thickness of the tubes is less than $\frac{1}{4}$ of an inch.

All the tubes should be tested by the makers to a suitable hydraulic pressure and the tests of at least 25 per cent should be witnessed by the Inspector.

(b) For solid drawn steel tubes subject to external pressure if no allowance over that given for iron is required a few bending tests should be made from the scrap ends of the stay tubes, but special tests need not be made from the ordinary tubes if the Inspector finds the general quality of the material satisfactory, and he is satisfied.

If allowance over iron is required tensile and bending tests should be witnessed by the Inspector in the proportions given in the preceding paragraph of this section, and the tensile strength and elongation should be as set out in that paragraph.

Canada Shipping Act—continued

All the tubes should be tested by the makers to a suitable hydraulic pressure but the tests need not be witnessed by the Inspector if he is satisfied that the tubes have been duly tested by the makers.

(c) for steel lap welded tubes subject to external pressure for which no allowance over iron is required a few bending tests should be made from the scrap ends of the stay tubes or the strips from which they are made, but special tests need not be made from the ordinary tubes if the general nature of the material has been found satisfactory and the Inspector is satisfied.

For steel stay tubes for which allowance over iron is required tensile and bending tests should be made from 25 per cent of the strips from which the tubes are made. The tensile strength should range between 23 and 28 tons per square inch, and the elongation should be at least 20 per cent in a length of 8 inches, when the strips are tested in their normal condition.

All the tubes should be tested by the makers to a suitable hydraulic pressure, but the tests need not be witnessed by the Inspector if he is satisfied that the tubes have been duly tested by the makers.

18. In regard to boiler tubes generally, the hydraulic test should not in any case be less than 3 times the working pressure, and it should not exceed four times the pressure given by the rule:—

$$\frac{6000 \times \text{thickness in inches}}{\text{Inside diameter in inches}} = \text{pressure.}$$

in the case of lap welded tubes, or five times that pressure in the case of solid drawn steel tubes.

All the tests mentioned should be made in the Inspector's presence, except where otherwise stated, and such means as may be necessary should be taken to satisfy the Inspector that the specimens he may have to test have been cut from the tubes they represent.

If any of the aforesaid tubes are made in long lengths and passed by the Inspector in that condition, the number of tests required may be calculated on the number of tubes as made, notwithstanding that they may afterwards be cut up into shorter lengths.

Solid drawn tubes of a thickness not exceeding $\frac{1}{8}$ inch should be finished by the hot drawn process unless cold drawing has been specially sanctioned, and all cold drawn tubes should afterwards be efficiently annealed.

19. For the diameter and thickness of plain and stay tubes for boilers the following table may be worked to:—

Outside diameter in inches	Standard Thicknesses in L.S.G.				Suitable for working pressures of pounds per square inch			
Inches	A	B	C	D	A	B	C	D
2		11	10	9		155	215	300
2 $\frac{1}{4}$	11	10	9	8	140	190	260	315
2 $\frac{1}{2}$	11	10	9	8	125	175	230	300
2 $\frac{3}{4}$	11	10	9	8	110	160	215	275
3	10	9	8	7	140	190	250	300
3 $\frac{1}{4}$	10	9	8	7	130	180	230	280
3 $\frac{1}{2}$	10	9	8	7	120	165	215	260

Canada Shipping Act—continued

The minimum thickness of stay tubes measured under the threads shall be $\frac{1}{4}$ inch for marginal stay tubes and $\frac{3}{16}$ inch for other stay tubes.

20. If stay tubes are required to have their thickness increased at the screwed ends so that the thickness at the bottom of thread is practically the same as in the body of the tube, the thickening is to be attained by upsetting and not by any welding process, and the tubes are to be annealed after the upsetting.

21. Stay tubes must be screwed at both ends with a continuous thread which should not be finer than 10 threads per inch. It is desirable, however, that they should be screwed to the standard 9 threads per inch.

Exceptions, Provision for

22. (a) If it be proposed to construct a boiler of plate which has not been tested under this Part an Inspector may accept such plate if it be properly marked with the mark or name of the maker and that all the particulars as required by Section 25, Part I, have been provided by the maker of the boiler.

(b) Such untested plates will, however, be deemed to have a tensile strength not in excess of 22 tons per square inch and the working pressure of the boiler shall be calculated accordingly, similarly stays, tubes, angles and such like used in the construction of a boiler, which have not been tested as required in this Part, shall, for the purpose of calculating the working pressure, be deemed to be iron and they shall be allowed a working stress not in excess of 7,000 pounds per square inch.

(c) The Inspector shall, during construction of such a boiler in which untested material is used, satisfy himself by bend and temper tests that the material is of good quality and suitable for the purpose for which intended, and if not so satisfied he shall refuse a certificate for the boiler.

(d) No boiler built of material not tested as required in this Part shall be allowed a working pressure in excess of 150 pounds per square inch, and in no case shall a boiler built of such material and of which the cylindrical shell (or cylindrical barrel when of the locomotive type) has an internal diameter in excess of 96 inches, be accepted.

23. When a boiler consists of a number of elements made up of screwed pipes of small diameter joined by screwed fittings and having a drum or steam receiver of small diameter such as is known as a "pipe coil boiler," and such that the failure of one element would not be a serious menace, the tests for pipe and screwed fittings connecting them or for the material of which these are composed shall be laid down by the Board and shall be such, having due regard to all the circumstances in connection with each individual type of boiler, as shall give a reasonable assurance that the pipes and castings are suitable and safe for the purpose for which intended.

Cast iron pipe fittings must not be used as fittings connecting the parts of such boilers, but beaded malleable cast iron fittings may be used for pipe sizes up to and including 4 inches, for pressure not exceeding 300 pounds per square inch, for pipe fittings above 4 inches size or where

Canada Shipping Act—continued

pressures above 300 pounds per square inch are carried, cast steel must be used for any pipe fitting or header connecting the heating elements of such a boiler together. All pipes forming the heating units shall be of iron or steel of first quality metal, properly welded or solid drawn.

24. The provisions of sections 14 and 15 of this Part of these regulations are, generally speaking, intended to apply only to the main parts, shafts, connecting rods, piston rods, etc., of large engines, and need not be applied in the case of small forgings or castings failure of which would not be expected to be of moment. The Board shall have power, however, in general or in any particular case to decide in how far sections 14 and 15 above mentioned shall apply, having due regard to size and weight of any forging or casting, the stresses to which it will be subjected under working conditions, complication of design and importance of position in the engine, and type of engine.

Generally speaking, the main forgings of engines of the two cylinder compound type in excess of 50 *nominal horse-power* shall be subject to the provisions of sections 14 and 15, similarly with regard to triple expansion, three cylinder engines in excess of 75 *nominal horse-power* or any engine of similar size or power subject to similar stresses.

25. Where in this Part of these regulations material is required to be tested in the presence of an Inspector, the requirements of this Part will be deemed to have been complied with when tests have been made in the presence of a surveyor to the British Board of Trade or of an exclusive surveyor to Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the Bureau Veritas International Register for the Classification of Shipping, or the American Bureau of Shipping, provided—

(1) That all such material is stamped and marked to show that it has been tested by such surveyor in accordance with these regulations, or the regulations of the British Board of Trade, Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, or the Bureau Veritas International Register for the Classification of Shipping, and has satisfactorily withstood those tests.

(2) That an Inspector may, if he has good reason for so doing, reject any such material until it has been satisfactorily tested in his presence, and that in any case he may require bend or temper tests of any part to be made in his presence, or otherwise satisfy himself as to the strength and quality of any such material.

(3) That in no case shall an Inspector accept tests made by any such surveyor as above mentioned, unless he is provided with proper documentary evidence as regards the quality of the steel and tests made of it duly signed by the surveyor who has witnessed the tests all as required under section 2 of this Part.

Canada Shipping Act—continued

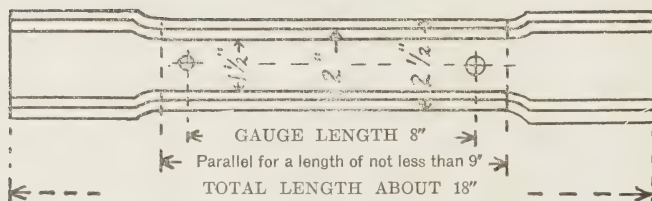
APPENDIX— PART II

TEST PIECE A.

For Thicknesses over $\frac{7}{8}$ "
Maximum width allowed
= $1\frac{1}{2}$ ".

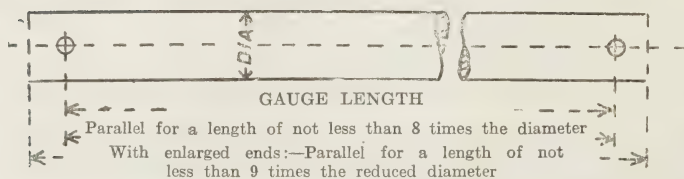
For Thicknesses $\frac{3}{8}$ " to $\frac{7}{8}$ "
Maximum width allowed
= $\frac{9}{8}$ ".

For Thicknesses under
 $\frac{3}{8}$ " Maximum width allow-
ed = $2\frac{1}{4}$ ".

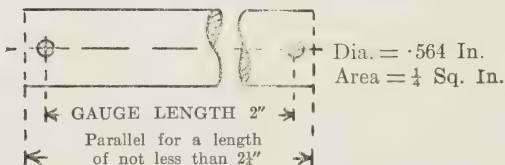


NOTE.—It will be observed that the widths given above being maxima do not exclude the use of the usual $1\frac{1}{2} \times 8$ " test pieces.

TEST PIECE B.

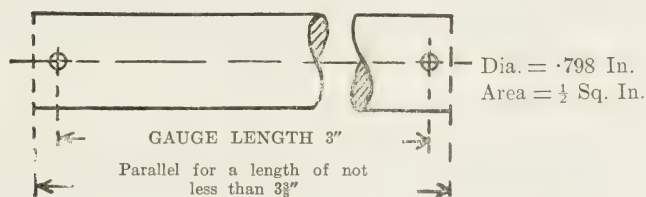


TEST PIECE C.

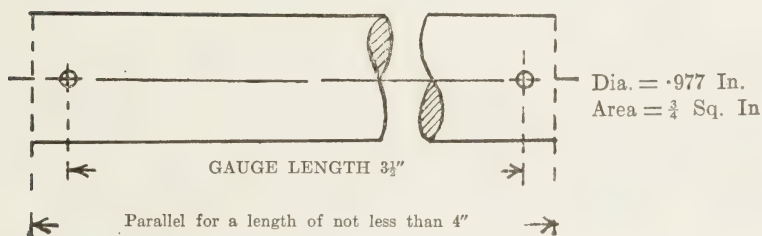


APPENDIX—PART II—Continued

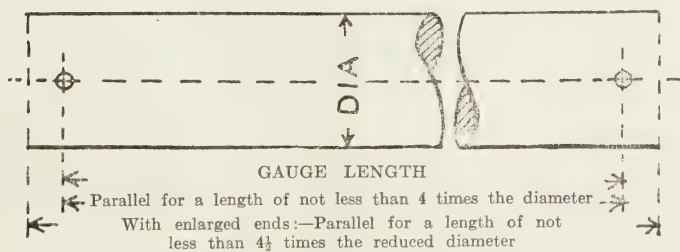
TEST PIECE D.



TEST PIECE E.



TEST PIECE F.



Canada Shipping Act—continued

PART III

BOILERS AND MACHINERY, GENERAL CONDITIONS AS TO DESIGN AND WORKMANSHIP

Boilers

1. The rivetting of the seams joining the end plates to the cylindrical shell shall be not less than 42 per cent of that of the solid plate. Where the shell plates exceed $\frac{5}{8}$ inch in thickness the seams connecting the shell plates to the end plates are to be double rivetted.

2. The circumferential seam at or near the middle of the length of single ended boilers should have a strength of joint not less than 60 per cent of the solid plate. The inner circumferential seams of double ended boilers should have a strength of joint not less than 62 per cent of the solid plate. In any case there shall be three rows of rivets when single ended boilers have shell plates over $1\frac{3}{8}$ inches in thickness and when double ended boilers have shell plates over $1\frac{3}{16}$ inches in thickness. Where the shell plates exceed $\frac{1}{2}$ inch in thickness the intermediate circumferential seams of double ended boilers are to be at least double rivetted.

In vertical boilers when the cylindrical seams are not complete circles and when the plates exceed $\frac{5}{8}$ inch in thickness the rivetting shall be double.

3. No steel plates subject to a direct tensional stress are to be welded except where the weld is covered by a butt strap or straps. For small steam domes, by special permission of the Board where the welding is done by hammer and the plates do not exceed $\frac{1}{2}$ inch in thickness, the straps may be omitted. The strength shall, in such cases, be assumed to be 50 per cent of that of the solid plate. All steel plates which are welded, dished, flanged or locally heated are to be afterwards efficiently annealed.

4. Butt straps must be cut from plates and not from rolled strip.

5. (a) All rivet holes, except as hereafter provided in Section 20 of this Part, must be drilled "fair" and as far as possible they should be drilled in place. After drilling the plates the burrs should be removed and the faying surfaces of the plate cleaned and the sharp outer edges of the holes removed also.

(b) In no case shall a certificate be granted for a boiler when drift pins have been used in bringing the holes in the plates together.

6. No steel stays are to be welded. If plus threads are desired, the ends of the stay bars may be upset or the bars may be drawn down in the central portions from bars originally of the size of the ends. In either of these two cases the bars must be subsequently annealed throughout.

In double ended boilers the through longitudinal stays must be supported at or near the middle of their length.

7. All screw stays $1\frac{1}{4}$ inches in diameter and upwards should be threaded nine threads per inch, and all stays 2 inches in diameter and above, passing through plates and secured by nuts at each side of the plate, should have not more than six threads per inch.

It is desirable that the threads of all screw stays should be turned off between the parts fitting into the plates.

Canada Shipping Act—continued

It is desirable in all cases that the ends of screw stays should have a hole $\frac{3}{16}$ inch in diameter drilled axially to a distance of at least $\frac{1}{2}$ inch beyond the inner face of the plates they are fitted into. Screw stays passing through confined spaces such that their condition cannot be observed shall be so drilled and the Board may require that all screw stays shall be so drilled.

In the case of stays less than 1 inch diameter the holes drilled may be $\frac{1}{8}$ inch in diameter.

8. When more than three screw stays pierce the cylindrical shell in a horizontal line, if d is their diameter, and p , the pitch

$$\frac{100 (p-d)}{p}$$

p

should not be less than the percentage of strength required for the shell longitudinal joints. If this is not possible the stays must be arranged out of line with one another longitudinally.

9. Screw stays are not to be used when supporting flat surfaces at any angle but a right angle to the surface supported.

Screw stays of combustion chambers when fitted with nuts should be, as far as possible, normal to the chamber plates. When this is not possible they must be fitted with taper washers to provide a fair bed for the nuts.

10. Nuts to screw stays in combustion chambers shall be not less nor need be more than $\frac{3}{4}$ inch thick for stays up to $1\frac{1}{2}$ inches diameter over threads, $\frac{7}{8}$ inch thick for $1\frac{5}{8}$ inch and $1\frac{3}{4}$ inch stays, 1 inch thick for $1\frac{7}{8}$ inch and 2 inch stays and $1\frac{1}{8}$ inch thick for stays over 2 inches in diameter.

The nuts for longitudinal stays shall be equivalent to the British standards appropriate to the diameters of the stays, the outside nut having the thickness therein provided for ordinary nuts, and the inside nuts having the thickness provided for lock nuts.

The nuts shall be made of solid mild steel or of iron which must be without weld when exposed to flame.

11. When jointed longitudinal stays are fitted between the front and back tube plates it is desirable that they should be fitted with pins having an effective sectional area 25 per cent in excess of that of the stay. The pins may be slack in the holes, the total slackness being not more than $\frac{1}{16}$ inch. The pins must be as close as possible to the shoulder of the eye forging. The shoulder of the forging should be at least $\frac{1}{2}$ inch wide all round, i.e., the diameter at the shoulder must be not less than the diameter of the hole plus 1 inch.

12. All boilers should have, when possible, means for ingress whereby examination and cleaning of the inner surfaces of plates and tubes exposed to flame may be thoroughly effected. When boilers are too small to permit of this there must be mudholes and sigholes sufficiently large and numerous to permit of the inside being satisfactorily cleaned.

Vertical boilers having cross tubes must have adequate means for cleaning these.

When the cross tubes are large there must be a sighole in the shell opposite one end of each tube sufficiently large to examine and clean it. The doors of these sigholes must be in positions accessible for that purpose.

Canada Shipping Act—continued

13. (a) All openings in the cylindrical shells of boilers, such as manhole or mudhole openings, must have the short axis arranged longitudinally and no boiler with such openings arranged otherwise shall be accepted without reference to the Board for a decision.

(b) If holes are cut in the cylindrical shells of boilers for fixing the mountings the diameter of the holes being greater than $2\frac{1}{2}$ times the thickness of the shell plating plus $2\frac{3}{4}$ inches, compensation must be fitted as in the case of manholes.

14. Where the cylindrical shell of a boiler is cut for a manhole, compensation must be provided and must be such that the strength in way of the hole is not less than that required for the longitudinal joint.

Generally speaking, openings in the cylindrical shells of boilers such as handholes or mudholes should be fitted with compensation rings, and in no case shall a boiler be accepted when there are mudhole or handhole openings having a short axis in excess of $2\frac{1}{2}$ times the thickness of the shell plating in inches, plus $2\frac{3}{4}$ inches, unless ample and proper reinforcement be provided.

15. When a flat plate is flanged to stiffen it at a manhole or sighthole to permit the same working pressure as would be allowed upon an unpierced plate, the depth of the flange measured from the outer surface is to be at least equal to $\sqrt{t \times w}$, where t is the thickness of the plate in inches and w is the minor axis of the hole in inches.

Where a plate is not flanged equivalent reinforcement must be provided.

16. The doors to manholes, mudholes and sightholes must be built up or pressed to shape and annealed, or made from one thickness of plate with a machined recess for the jointing material. Their spigot part or the recess must not have a greater clearance than $\frac{1}{16}$ inch all round, i.e., the axes must not be less than $\frac{1}{8}$ inch shorter than those of the holes in which they are fitted.

The studs of all doors should be screwed through the plate, and be fitted with nuts on the inside, or bolts may be used screwed through the plate with the heads inside.

17. Stay tubes are to be screwed at both ends with continuous threads and the holes in the tube plates are to be tapped with continuous threads. The threads should be as set out in section 19, Part II of these regulations, that is, they should not be finer than 10 threads per inch, and preferably they should be screwed to the standard 9 threads per inch. Stay tubes are to be expanded by roller expanders and not made tight by caulking only.

18. No boiler whether main or auxiliary in which oil fuel is used shall have a damper or other possible means of obstruction to draught in the uptake or funnel.

19. (a) The end plates in the steam space in way of the uptakes shall be shielded from contact with hot gases.

(b) Where in any boiler there is a steam drum exposed to heat or flame and not protected by water or other satisfactory means, the working pressure allowed on the drum shall be found by the application of the formulæ in Part IV, but the maximum tensile strength for the material, whether iron or steel, used in the calculation shall be deemed to be not in excess of 30,000 pounds per square inch.

(*Re* unshielded uptakes of vertical donkey boilers see section 24 dealing with superheaters.)

Canada Shipping Act—continued

20. (a) It is expected that in good boiler work all rivet holes throughout shall be drilled, and that in the case of cylindrical parts the rivet holes shall be drilled in place, but if it be desired to punch the rivet holes and afterwards ream them out or anneal the plates full particulars must be submitted to the Board, and authority obtained before a boiler in which such workmanship is proposed shall be accepted.

(b) In all cases where authority has been given for punching rivet holes and reaming out or annealing the plates, the boilers shall be marked "punched and reamed," or "punched and annealed", as the case may be, in a conspicuous place with the stamps showing working pressure, etc.

21. (a) The neutral parts of boiler shells under steam domes or other neutral parts must be sufficiently stiffened and stayed.

(b) The sides of boilers having square furnaces and half round tops must be stayed from side to side of the shell over the furnace, one or more rows of these stays to be placed well above the centre of the cylindrical part.

(c) The tube plates of vertical boilers must be sufficiently stayed with stay tubes, also all boilers where deemed necessary by an Inspector. In boilers intended for a working pressure in excess of 120 pounds per square inch the tube plates must be stayed with stay tubes distributed and arranged in accordance with the formula set out in Part IV of these regulations.

(d) Where a boiler is of a type, such as the locomotive, having a comparatively long firebox and the crown sheet of the firebox or furnace is fitted with girders, it will generally be found necessary to fit sling stays from these to the top of the boiler. When in such boilers sling stays are fitted they, with their attachments, should be so proportioned, as to be safe taking the whole load due to the steam pressure acting on the crown sheet of the firebox.

Engines, Evaporators, Etc.

22. Main, tunnel, propeller and paddle shafts should not be passed if less in diameter than that found by the following formulæ whether for steam engines of the reciprocating or turbine type without submitting the whole case to the Board for consideration.

(a) For compound condensing engines with two or more cylinders when the cranks are not overhung:—

$$S = \sqrt[3]{\frac{C \times P \times D^2}{f \left(2 + \frac{D^2}{d^2} \right)}}$$

$$P = \frac{f \times S^3}{C \times D^2} \left(2 + \frac{D^2}{d^2} \right)$$

where S is the diameter of shaft, in inches,

d^2 is the square of diameter of high pressure cylinder, in inches, or sum of squares of diameters when there are two or more high pressure cylinders,

D^2 is the square of diameter of low pressure cylinder, in inches, or sum of squares of diameters when there are two or more low pressure cylinders,

Canada Shipping Act—continued

P is the absolute pressure, in pounds per square inch, that is, boiler pressure plus 15 pounds,

C is the length of crank, in inches,

f = constant from the following table:—

For ordinary condensing engines with one, two or more cylinders when the cranks are not overhung:—

$$S = \sqrt[3]{\frac{C \times P \times D^2}{3 \times f}}$$

$$P = \frac{3 \times f \times S^3}{C \times D^2}$$

where S is the diameter of shaft, in inches,

D^2 is the square of diameter of cylinder, in inches, or sum of squares of diameters when there are two or more cylinders,

P is the absolute pressure, in pounds per square inch, that is, boiler pressure plus 15 pounds,

C is the length of crank, in inches,

f = constant from the following table:—

TABLE

For two cranks. Angle between cranks	For crank and thrust shafts	For tunnel shafts	For propeller shafts
90°	For paddle engines of the	1,221	890
100°	direct-acting type, multi-	1,128	821
110°	ply constant in this col-	1,055	768
120°	umn suitable for angle of	997	727
130°	cranks by 1.4.	953	694
140°		919	670
150°		894	651
160°		877	638
170°		867	631
180°		864	629
For three cranks 120°	1,110	1,295	943

When there is only one crank the constants applicable are those in the table opposite 180°.

The portion of the propeller shaft which is forward of the stern gland, and all the thrust shaft, with the exception of the part enclosed in the thrust bearing, may be of the same diameter as the intermediate tunnel shafting.

NOTE.—When the diameter of the crank shaft has been ascertained by calculation, the diameter of the propeller shaft may be found by multiplying the diameter of the crank shaft by 1.056, and that of tunnel shafts by multiplying by .95.

Canada Shipping Act—continued

(b) For turbine engines:—

$$S = \sqrt{\frac{{}^3\sqrt{I. H. P. \times f}}{R}}$$

where S is the diameter of shaft, in inches,

$I.H.P.$ = estimated maximum indicated horse-power transmitted through shaft,

R = number of revolutions per minute,

$f = 60.3$ for tunnel shafts,

$f = 82.8$ for propeller shafts.

If the horsepower transmitted through the shaft when manœuvring exceeds that when running at full ordinary speed, the greater horsepower should be used in the computation.

NOTE.—When the diameter of the tunnel shaft has been ascertained by calculation, the diameter of the propeller shaft may be found by multiplying the diameter of the tunnel shaft by 1.112.

(c) For internal combustion engines the question of the size of shafts to be fitted shall be referred to the Board for a decision having due regard to the type of engines fitted whether four cycle or two cycle, single acting or double acting, maximum pressures carried, etc.

23. (a) The bed plates, columns, guides, brackets, etc., must be of sufficient strength to withstand, with an ample margin of safety, not only the stresses due to steam pressure acting through them, but also the stresses due to the weights of the various parts, and to the movement of a ship in a seaway, and they must be fitted and fastened in a secure and workmanlike manner, bolts and other fastenings being sufficient in number, of suitable material and dimensions, and properly distributed. They shall also be of such cross section and be so proportioned as to ensure ample rigidity so that a true alignment of the engine may be maintained and a proper distribution of the stresses between the various parts be obtained.

(b) Cylinders and valve casings, their covers, steam receivers, etc., shall be sound castings of ample thickness properly stiffened as may be required for the steam pressures to be carried and shall have such proportions and rigidity as to ensure that they will retain their form and alignment under working conditions and they shall be fitted and fastened together in a strong workmanlike manner, all bolts and other fastenings being sufficient in size, material and distribution.

(c) All bearings shall be so proportioned and of such proper material as to allow of their taking the maximum loads, with the machinery turning at full speed without undue risk of overheating and they shall have ample rigidity and shall be effectively supported and secured in place. Proper provision shall be made for lubricating all bearings and for observing and testing their condition while the machinery is in motion.

(d) The moving parts of the machinery, particularly those carrying high stresses and failure of which would be of major importance must be of wrought iron or mild steel or other suitable material of first quality, and they shall be of such form and dimensions as to carry, with a proper

Canada Shipping Act—continued

margin of safety, the stresses they will be subjected to. Parts such as connecting rods, piston rods, pistons, pump levers, plungers, etc., and their bolt fastenings, should have their dimensions checked by the use of appropriate recognized engineering formulæ, the unit working stresses adopted being such as to allow an ample margin of safety, having due regard to the effects of shocks, sudden reversal and application of loads, methods of guiding and securing, etc. Bolt fastenings of moving parts shall have suitable "keeps" fitted as may be required to prevent the nuts slacking back.

(e) Condensers and pumps shall be of ample capacity and shall be of such material and so proportioned as shall give reasonable assurance against breakdown and they shall be arranged with suitable openings as may be required for examination and adjustment of tubes, valves, etc.

(f) The cylinders, valve casings, pumps, etc., shall be fitted with suitable relief valves and drains, as may be required to guard against damage from excess pressure or the presence of water and they shall be so arranged that the engine room crew will not be endangered by the discharge of hot water or steam.

24. (a) The strength of the joints of cylindrical superheaters and the factor of safety to be used are found in the same manner as in the case of cylindrical boilers and steam receivers, but instead of using 47,000 pounds as the tensile strength of iron, 30,000 pounds is to be adopted, unless the heat or flame impinges at or nearly at right angles to the plate, when 22,400 pounds is to be substituted.

(b) When a superheater is constructed with a tube subject to external pressure the working pressure should be found by the following formulæ, the least result being taken:—

$$1. W.P. = \frac{C \times t^2}{(L + 1) \times d}$$

where t is the thickness of plate, in inches.

L is the length of tube between points of support, in feet,

d is the outside diameter, in inches,

Values of constant C :—

Butt joints	{ welded, double butt strap single
	{ riveted, or single butt strap
	{ double riveted, 58,000
Lap joints	{ lap joints double riveted, 48,000
	{ lap joints single riveted, 42,000

$$2. W.P. = 9000 \times \frac{t}{d}$$

t and d having the values given above.

(c) Whilst the tubes for superheaters of the type in which there is a coil or series of small tubes subject to internal pressure should be of solid drawn steel, no other part of a superheater should be made of steel unless with the approval of the Board, and this applies likewise to the unshielded uptakes of all boilers including ordinary vertical donkey boilers.

The ends of superheaters should be fitted with shield or baffle plates where exposed to the hot gases in the uptake.

Canada Shipping Act—continued

(d) Superheaters that can be shut off from the main boilers shall be fitted with an approved safety valve of sufficient size, but the least size passed without special written authority should be 2 inches in diameter.

Drain pipes must in all cases be fitted to superheaters in which a collection of water in the bottom is possible.

(e) As the uptakes of certain boilers are especially liable to injury from overheating unless careful precautions are taken while steam is being raised, Inspectors should in all cases endeavour to persuade the makers and owners of such boilers to make the strength of the uptakes considerably in excess of that required for ordinary superheaters subject to external pressure. Additional strength can be obtained by the fitting of such arrangements as bowling rings which with a moderate thickness of plate is better than the use of very thick plating.

The above applies to the uptakes of ordinary vertical donkey boilers.

25. (a) The strength, quality of material, and method of construction of evaporators, generators, feed makeups, etc., where water is evaporated under pressure, should, as a rule, be in accordance with the regulations for steam boilers. For moderate pressures, however, evaporators of the type usually fitted may be made of cast material but in no case should the pressure exceed 15 pounds per square inch when the main body of the apparatus is a single casting. Subject to this limitation and to the sanction of the Board for the use of such material in each particular case, evaporators made of cast iron, or of gunmetal, having a tensile strength of not less than 10 tons per square inch, may be allowed a working pressure not exceeding that found by the following formulæ, provided the thickness is not less than $\frac{5}{8}$ inch in the case of cast iron and $\frac{3}{8}$ inch in the case of gunmetal, and the castings are in every way sound and to the Inspector's satisfaction:

$$\frac{C \left(T - \frac{1}{8}\right)}{D} = \text{working pressure.}$$

$$\frac{C_1 \times T^2}{D^2} = \text{working pressure.}$$

$$\frac{C_2 \times T^2}{S^2} = \text{working pressure.}$$

where T is the thickness, in inches,
 D is the diameter, in inches,
 S is the side, in inches.

For cast iron:—

$$C = 4,000$$

$$C_1 = 24,000$$

$$C_2 = 16,000$$

For gunmetal:—

$$C = 6,000$$

$$C_1 = 30,000$$

$$C_2 = 20,000$$

Canada Shipping Act—continued

If cast steel is used the thickness of any part of the shell should not be less than $\frac{1}{2}$ inch, and the constants C , C_1 , and C_2 may be 10,400, 52,000 and 34,700 respectively.

The formulæ may also be used for determining the working pressure permissible for feed heaters, feed filters, etc., and for such vessels the constants for cast iron and cast steel may be increased by 25 per cent.

When there are large branches, doors or other large openings in the castings, the scantlings will require to be materially increased, and such cases should be submitted to the Board for consideration before being passed.

When the ends are cast solid with the shell there should be a substantial fillet all round inside, and when the ends are bolted, D , in the flat surface formula should be the diameter of the bolt circle. The flange should be of sufficient thickness and have a substantial fillet at the root all round.

(For working load on feed heaters, filters, etc., and relief valves required, see section 26, Part I.)

(b) In calculating the strength of studs or bolts securing the covers of evaporators, feed heaters, feed filters, and other similar vessels, the calculated load on the cover should be found by multiplying the area of the pitch circle by the working pressure, and the nominal stress allowed on the net section of the material of the studs, etc., should not exceed 7,000 pounds per square inch in the case of iron and 9,000 pounds per square inch in the case of steel, the maximum allowance being permissible only when the diameter is $\frac{7}{8}$ inch or more. When the studs or bolts are of a diameter less than $\frac{7}{8}$ inch the nominal stress allowed per square inch of net section should not exceed 6,000 pounds in the case of iron and 7,200 pounds in the case of steel, owing to the relatively greater stress to which they are subject when the nuts are tightened.

Studs or bolts securing covers which are required to be frequently removed should not be less than $\frac{7}{8}$ inch in diameter.

(c) The mountings, etc., for evaporators should, as a general rule, be similar to those required in the case of boilers on board steamships, but a single safety valve may be allowed, provided it is of sufficient size.

(d) When a reducing nozzle is fitted in the steam supply pipe, the contracted orifice should not, in ordinary cases, exceed that found by the following formula:—

$$\frac{A \times p}{6 \times P} = \text{area of orifice.}$$

where A = combined area of safety valves fitted to the evaporator,

p = absolute pressure at which the evaporator is worked,


P = absolute pressure of entering steam.

The reduced orifice for an evaporator having only one safety valve should not, in any case, be greater than would be allowed for the same pressure with a single valve $2\frac{13}{16}$ inches in diameter (i.e. equivalent in area to two 2-inch valves).

Reducing orifices should be bored through brass or similar material and should be parallel for a length of at least $\frac{1}{4}$ inch; and each nozzle should be formed with a facing at the side, on which particulars regarding

Canada Shipping Act—continued

the safety valves, their load, the maximum pressure of the entering steam, and the diameter of the orifice should be stamped, as shown by the following example:—

D		C
<p>M</p> <p>2 S.V. DIA. 3" Load 10</p> <p>lbs., sq. in.</p> <p>B.P. 160 lbs.</p> <p>Red. or 2$\frac{1}{2}$" Dia.</p> <p>(Date) (Initials)</p>		

(e) On the completion of the hydraulic test of an evaporator, a feed heater, feed filter, or other similar vessel which complies with these regulations and has been inspected during construction, the Inspector in order to afford means of identification should stamp the apparatus in a conspicuous place, with the pressure applied to the shell, the pressure applied to the coils (if any), the date, and his initials.

PART IV

RULES FOR DETERMINING THE WORKING PRESSURE TO BE ALLOWED ON STEAM BOILERS

1. (a) For the cylindrical shells of steel marine boilers the maximum working pressure (which is designated by W.P. and is in pounds per square inch), to be allowed shall be calculated from the following formula:—

Where the thickness of the shell plates does not exceed 1 $\frac{3}{4}$ inches:—

$$W.P. = \frac{(t-2) \times S \times J}{C \times D}$$

Where the thickness of the shell plates exceeds 1 $\frac{3}{4}$ inches and double butt straps are fitted:—

$$W.P. = \frac{t \times S \times J}{2.85 \times D}$$

where t is the thickness of the shell plates, in 32nds of an inch,

S is the minimum tensile strength of the shell plates, in tons per square inch,

J is the percentage of strength of the longitudinal seams calculated by the methods described below,

C is a coefficient, which is 2.75 when the longitudinal seams are made with double butt straps; 2.83 when the longitudinal seams are made with lap joints and are treble riveted; 2.9 when they are made with lap joints and are double riveted, and 3.3 when they are made with lap joints and are single rivetted,

Canada Shipping Act—continued

- D* is the inside diameter of the outer strake of plating of the cylindrical shell measured in inches.

N.B.—the factor of safety must be in no case less than 4.

(b) The formulæ in paragraph (a) of this section are intended to be used to obtain the working pressure of steel boilers in which the method of construction is first class, all rivet holes being fair and good and drilled in place after bending, the plates having been taken apart thereafter, the burrs removed, the faying surfaces of the plates cleaned and the sharp outer edges of the holes removed also, and which boilers have been open to inspection during the whole period of construction. If in any case there be any departure from the highest class of construction as set out in these regulations, the working pressure found by the formulæ above shall be reduced proportionately:—

- (1) If the holes are fair and good but drilled out of place after bending the working pressure shall be reduced $3\frac{1}{2}$ per cent.
- (2) If the holes are fair and good but drilled before bending the working pressure shall be reduced 7 per cent.
- (3) For other cases of departure from the highest class of construction the matter shall be referred to the Board for a decision.

In the case of a boiler not built under inspection as provided in these regulations the matter must be referred to the Board who shall have power to decide as to the working pressure to be allowed, having due regard to all the circumstances in each individual case.

2. (a) The percentage of strength of a riveted joint (J) is found from the following formulæ (I), (II), (III): (I) and (II) are applicable to any type of joint: (III) is applicable only to that type of joint in which the number of rivets in the inner rows is double that in the outer row. The lowest value given by the application of these formulæ is to be taken as the percentage of strength of the joint.

(I) Percentage of strength of plate at joint as compared with solid plate

$$= \frac{100 (p-d)}{p}$$

(II) Percentage of strength of rivets as compared with the solid plate

$$= \frac{100 (S_2 \times a \times n \times C)}{S_1 \times p \times T}$$

(III) Percentage of combined strength of the plate at the inner row of rivet holes and of the rivets in the outer row

$$= \frac{100 (p-2d)}{p} + \frac{100 (S_2 \times a \times C)}{S_1 \times p \times T}$$

where p = pitch of rivets at outer row, in inches,

d = diameter of rivet holes, in inches,

a = sectional area of one rivet, in square inches,

n = number of rivets which are fitted in the pitch, p ,

Canada Shipping Act—continued

T = thickness of plate, in inches,

$C = 1.0$ for rivets in single shear as in lap joints,

$C = 1.875$ for rivets in double shear as in double butt strapped joints,

S_1 = minimum tensile strength of plates, in tons per square inch,

S_2 = shearing strength of rivets, which is taken generally to be 23 tons per square inch, and may be 85 per cent of the minimum tensile strength of the rivet bars.

(b) The above formulæ refer to riveted joints as shown in the appendix to this Part. If joints other than those shown in the appendix are proposed to be used the matter shall be referred to the Board for a decision.

3. Where the longitudinal seams are fitted with double butt strapped joints, the outer butt strap should have at least 0.625 of the strength of the plate, and should be of sufficient thickness to permit of efficient caulking. The inner butt strap should be $\frac{4}{32}$ inch thicker than this.

In cases where the number of rivets in the inner rows is double the number in the outer row, this will require the thickness of the outer strap to be:

$$t = \frac{5 \times (p-d)}{8 \times (p-2d)} \times T$$

and that of the inner strap to be at least:—

$$t_a = \frac{5 \times (p-d)}{8 \times (p-2d)} \times T + \frac{4}{32} \text{ inch.}$$

4. In all cases the clear space between a rivet hole and the edge of the plate should be not less than the diameter of the rivet hole, i.e., the centre of the rivet hole should be at least $1\frac{1}{2}$ diameters distant from the edge of the plate.

In joints, whether lapped or fitted with butt straps, in which there are more than one row of rivets and in which there are an equal number of rivets in each row, the distance between the rows of rivets should be not less than $0.33p + 0.67d$ with zigzag rivetting, or $2d$, with chain rivetting.

In joints in which the number of rivets in the outer rows is one-half of the number in each of the inner rows, and in which the inner rows are chain rivetted, the distance between the outer rows and the next rows should be not less than $0.33p + 0.67d$, or $2d$, whichever is the greater, and the distance between the rows in which there are the full number of rivets should be not less than $2d$.

In joints in which the number of rivets in the outer rows is one-half of the number in each of the inner rows, and in which the inner rows are zigzag, the distance between the outer rows and the next rows should be not less than $0.2p + 1.15d$, and the distance between the rows in which there are the full number of rivets should be not less than $0.165p + 0.67d$.

In the above, p is the pitch of the rivets in the outer rows, and d is the diameter of the rivet holes.

Canada Shipping Act—continued

5. The maximum pitch of the rivets in the longitudinal joints of boiler shells is to be:—

Maximum pitch in inches = $C \times T + 1\frac{5}{8}$ inches, where T is the thickness of the plate in inches and C is a coefficient as given in the following table:—

Number of rivets per pitch	Coefficients for lap joints	Coefficients for double butt strapped joints
1	1.31	1.75
2	2.62	3.50
3	3.47	4.63
4	4.14	5.52
5		6.00

6. The working pressure to be allowed on plain furnaces or furnaces strengthened by Adamson or other joints, and on the cylindrical bottoms of combustion chambers, is to be determined by the following formulæ, the least pressure obtained by either formula being taken:—

$$W.P. = \frac{C (t-1)^2}{(L + 24) \times D}$$

$$\text{or } W.P. = \frac{C_1}{D} \times [10 (t-1) - L]$$

where D is the external diameter of the furnace or combustion chamber bottom, in inches,

t is the thickness of the furnace plate, in 32nds of an inch,

L is the length of the furnace or of combustion chamber bottom or the length between points of substantial support in inches, measured from the centres of rivet rows or from the commencement of flange curvature whichever is applicable.

$C=1450$ where the longitudinal seams are welded, and 1300 where they are rivetted.

$C_1=50$ where the longitudinal seams are welded, and 45 where they are rivetted.

$W.P.$ is the working pressure in pounds per square inch.

7. The working pressure to be allowed on corrugated furnaces is to be determined by the following formula:—

$$W.P. = \frac{C (t-1)}{D}$$

where D is the external diameter measured at the bottom of the corrugations, in inches.

t is the thickness of the furnace plate, in 32nds of an inch, measured at the bottom of the corrugation or camber,

C is a coefficient which is 480 for the Fox, Morison, Deighton, Purves, and other similar furnaces, 510 for the Leeds Forge Bulb Suspension furnace.

N.B.—No furnace, plain or corrugated, should exceed $1\frac{3}{8}$ inch in thickness.

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8. The working pressure to be allowed on flat plates supported by stays is to be calculated by the following formula:—

$$W.P. = \frac{(t-1)^2 \times C}{a^2 + b^2}$$

In this formula and that in Section 9

W.P. is the working pressure, in lbs. per square inch.

t is the thickness of the flat plate, in 32nds of an inch.

t_w is the thickness of the washers, strips or doublings employed, also in 32nds of an inch.

a is the distance apart of the rows of stays, in inches,

b is the pitch of the stays in the rows, in inches,

C is a coefficient which varies with method of fixing the stays, as follows:—

C=50 when the plates are exposed to heat or flame and the stays are screwed into the plates and riveted over.

C=57 when the plates are not exposed to heat or flame and the stays are screwed into the plates and riveted over.

NOTE.—When the stays are screwed into the plates and riveted over, the thickness of the plates must be at least half the diameter of the stay required by the rule.

C=52 when the stay tubes are screwed into the tube plates and expanded.

C=72 when the stay tubes are screwed into the tube plates and are fitted with nuts.

C=75 when the plates are exposed to heat or flame and the stays are screwed into the plates and fitted with nuts on the outside.

C=86 when the plates are not exposed to heat or flame and the stays are screwed into the plates and fitted with nuts on the outside.

C=96 when the plates are not exposed to heat or flame and the stays are fitted with nuts inside and outside.

C=96 when the plates are stiffened by flanging and the inner radius of the flange is not greater than $2\frac{1}{2}$ times the thickness of the plate and the plates are exposed to heat or flame.

C=110 when the plates are stiffened by flanging and the inner radius of the flange is not greater than $2\frac{1}{2}$ times the thickness of the plate and the plates are not exposed to heat or flame.

NOTE.—In the case of plates stiffened by flanging the pitch is to be reckoned from the commencement of the curvature of the flange.

For portions of plate where the stays are irregularly pitched d^2 is to be used instead of $a^2 + b^2$, d being the diameter of the largest circle which can be drawn passing through not less than three points of support, viz: the centres of stays or the commencement of the curvature of flanging whichever is applicable. In this case *C* is to be taken as the mean of the values appropriate for the points of support.

For the tops and sides of combustion chambers the distance between the rows of stays nearest to the back tube plate or the back plate, respectively, and the commencement of the curvature of the flange of these plates shall not be greater than *a*.

Canada Shipping Act—continued

It is desirable that the stays of the combustion chambers should be so placed that the seams of the plates can be caulked without removing the stay nuts.

For the tops of combustion chambers where they are joined to the sides by curved portions, if the outer radius of the curved portion is less than half the allowable distance between the girders, the distance between the first girder and the inner surface of the side plate should not exceed the allowable distance between the girders. If the radius of the curved portion is greater than half the allowable distance between the girders, the width of the flat portion measured from the centre of the girder should not be more than half the allowable distance between the girders.

Where portions of plate are supported by stays secured in different ways the value of C to be taken is the mean of the values appropriate to the method of securing the supporting stays.

9. Where the plates are supported by stays passing through them and are fitted with nuts inside and washers and nuts outside the diameter of the washers being at least 3.5 times that of the stay, and their thickness at least two-thirds that of the plate but not greater than that of the plate the working pressure may be:—

$$W.P. = \frac{100}{a^2 + b^2} \left[(t-1)^2 + 0.15 t_w^2 \right]$$

Where the washers have a diameter of at least two-thirds of the pitch of the stays and a thickness of at least two-thirds of the thickness of the plate, but not greater than that of the plate, and are riveted to the plate in an efficient manner:—

$$W.P. = \frac{100}{a^2 + b^2} \left[(t-1)^2 + 0.35 t_w^2 \right]$$

Where the plate is stiffened by strips which are at least two-thirds of the pitch of the stays in width, and have a thickness of at least two-thirds of that of the plate, but not greater than that of the plate and are riveted to the plate in an efficient manner:—

$$W.P. = \frac{100}{a^2 + b^2} \left[(t-1)^2 + 0.55 t_w^2 \right]$$

Where the plates are fitted with doubling plates riveted to them the doubling plates having a thickness of at least two-thirds of that of the plate but not greater than that of the plate:—

$$W.P. = \frac{100}{a^2 + b^2} \left[(t-1)^2 + 0.85 t_w^2 \right]$$

10. No nuts are to be fitted to stay tubes at the combustion chamber end. For the portions of tube plates in the nest of tubes:—

$$W.P. = \frac{C (t-1)^2}{p^2}$$

Canada Shipping Act—continued

where t is the thickness of the tube plate, in 32nds of an inch,

p is the mean pitch of the stay tubes supporting any portion of the plate (being the sum of the four sides of the quadrilateral divided by 4),

$C=38$ when the stay tubes are screwed and expanded into the plate and no nuts are fitted,

$C=49$ when the stay tubes are screwed and expanded into the plates and fitted with nuts.

For the wide water spaces of front tube plates between the nests of tubes and between the wing rows of tubes and the shell:—

$$W.P. = \frac{C [(t-1)^2 + 0.55 t_w^2]}{a^2 + b^2}$$

where t is the thickness of the front tube plate, in 32nds of an inch,

t_w is the thickness of the doubling plate, when so fitted, in 32nds of an inch,

a is the horizontal pitch of stay tubes, in inches, measured across the wide water space from centre to centre,

b is the vertical pitch of stay tubes in the bounding rows, in inches, measured from centre to centre,

$C=52$ when the stay tubes are screwed and expanded into the tube plates and no nuts are fitted,

$C=72$ when the stay tubes are screwed and expanded into the tube plates and nuts are fitted to each stay tube,

$C=63$ when the stay tubes are screwed and expanded into the tube plates and nuts are fitted only to alternate stay tubes.

11. The compressive stress on tube plates shall be calculated by the following formula, in which the stress is taken at 14,000 pounds per square inch:—

$$W.P. = 875 \times \frac{(D-d) \times t}{W \times D}$$

where t is the thickness of the tube plates, in 32nds of an inch,

D is the horizontal distance apart of the tubes, centre to centre, in inches,

d is the internal diameter of the plain tubes,

W is the width of combustion chamber measured inside from tube plate to back chamber plate, or between tube plates in double ended boilers with combustion chambers common to two opposite furnaces, in inches.

12. For girders supporting the tops of combustion chambers the following formula is to be used:—

$$W.P. = \frac{C \times d^2 \times t}{(L-P) \times D \times L} \times \frac{S}{28}$$

Canada Shipping Act—continued

where d is the depth of the girder at centre, in inches,

t is the thickness of the girder at centre, when this is a forging or the sum of the thickness of the plates when the girder is made of two plates, measured in 32nds of an inch,

L is the length of the girder, in inches, measured between the tube plate and back chamber plate inside, or between tube plates in chambers common to two opposite furnaces,

P is the pitch of stays supported by the girder, in inches,

D is the distance apart of the girders, centre to centre, in inches,

S is the minimum tensile strength of the steel plates forming the girder, in tons per square inch. In the case of forged girders S is to be taken as 24 for iron and 28 for steel,

n is the number of supporting stays,

$C = \frac{n}{n+1} \times 495$, when the number of stays in each girder is odd, and

$C = \frac{n+1}{n+2} \times 495$, when the number of stays in each girder is even.

13. For screw stays with threads not coarser than 9 threads per inch, made of steel or of special wrought iron tested to the requirements as set out in section 16, Part II of these regulations, the following formula is to be used:—

$$W.P. = \frac{(d-0.267)^2 \times 8250}{a}$$

where d is the diameter of the stay over the thread, in inches,

a is the area, in square inches, supported by one stay.

But in no case must the stress exceed 9,000 pounds per square inch of section.

14. For steel longitudinal stays with threads not coarser than 6 threads per inch the working pressure is to be calculated from the following formula:—

$$W.P. = \frac{(d-0.340)^2 \times 9500}{a} \times \frac{S}{28}$$

where d is the diameter of the stay over the thread, in inches,

a is the area, in square inches, supported by one stay,

S is the minimum tensile strength of the steel, in tons per square inch.

But in no case must the stress exceed 11,000 pounds per square inch of section, when steel of a minimum tensile strength of 28 tons per square inch is used.

In cases where longitudinal stays are made with enlarged ends and the body of the stay is smaller in diameter than at the bottom of the thread, and

Canada Shipping Act—continued

in cases where coarser threads than 6 per inch are used, the working pressure is to be calculated from the following formula:—

$$W.P. = \frac{(d_1 - 0.125)^2 \times 9500}{a} \times \frac{S}{28}$$

where d_1 is the diameter of the stay at the bottom of the thread or at the smallest part of the body.

15. On stay tubes, whether of wrought iron or of lap welded steel, a working stress of 7,500 pounds per square inch of the net sectional area at the bottom of the thread is permitted.

16. For ends of steam chests, etc., dished to partial spherical form (convex outside) the following formula is to be used:—

$$W.P. = \frac{15 \times S (t-1)}{R}$$

where $W.P.$ is the working pressure, in pounds per square inch,

t is the thickness, in 32nds of an inch,

R is the inner radius of curvature of the end, in inches, which shall not exceed the diameter of shell,

S is the minimum tensile strength of plates, in tons per square inch.

When the end has a manhole in it $\frac{4}{32}$ inch must be added to the thickness of the plate.

The inside radius of curvature at the flange must not be less than 4 times the thickness of the end plate and in no case less than 2.5 inches.

The total depth of flange of manhole from the outer surface in inches is to be at least equal to:—

$$\sqrt{t \times w}$$

where t is the thickness of the plate, in inches,

w is the minor axis, in inches.

17. When vertical boilers are fitted with plain furnaces tapered, the diameter to be taken for calculation purposes as set out in section 6 of this Part shall be the mean of that at the top and of that at the bottom where it meets the substantial support from flange or ring. The length for the same purpose shall be the distance from the centre of the row of rivets connecting the crown to the body of the furnace to the substantial support at the bottom of the furnace, or to a row of screwed stays connecting the furnace to the shell, provided the pitch of stays at the furnace does not exceed 14 times the thickness of the furnace plate when the stays are rivetted at their ends, and 16 times when they are fitted with nuts. Such screwed stays must be in diameter over the threads not less than 2.25 times the thickness of the furnace plate.

18. When the furnaces of vertical boilers are spherical in form and convex upwards at their tops, and are without support from stays of any kind:—

$$W.P. = \frac{275 (t-1)}{R}$$

Canada Shipping Act—continued

where t is the thickness of the top plate, in 32nds of an inch,
 R is the outer radius of curvature of the furnace, in inches.

19. For the ogee ring which connects the bottom of the furnace to the shell, and sustains the whole load on the furnace vertically:—

$$W.P. = \frac{140 (t-1)^2}{D \times (D-d)}$$

where t is the thickness of the ogee ring, in 32nds of an inch,

D is the inside diameter of the boiler shell, in inches,

d is the outside diameter of the lower part of the furnace where it joins the ogee ring, in inches.

20. When vertical boilers have a nest or nests of horizontal tubes so that there is direct tension on the tube plates due to the vertical load on the boiler ends or to their acting as horizontal ties across the shell, the thickness of the tube plates and the spacing of the tubes must be such that the section of metal taking the load is sufficient to keep the stresses within that allowed on the shell plates.

Further, each alternate tube in the outer vertical rows of tubes must be a stay tube. The tube plates between the stay tubes must be in accordance with the rules for tube plates as in section 10 of this Part, and in addition:—

$$W.P. = \frac{(t-2) \times S \times (p-d) \times 100}{2.9 \times D \times p}$$

where S is the minimum tensile strength of the steel plate, in tons per square inch,

t is the thickness of the tube plate, in 32nds of an inch,

D is twice the radial distance of the centre of the outer row of tube holes from the axis of the shell, in inches,

p is the vertical pitch of tubes,

d is the diameter of the tube holes, in inches.

21. When the tops of vertical boilers are dished or spherical in form and without stays, they must be in accordance with section 16 of this Part.

22. When the top of a vertical boiler is a complete hemisphere and without stays or other supports, and is made in more than one plate:—

$$W.P. = \frac{(t-2) \times S \times J}{C \times R}$$

where t is the thickness of top plates, in 32nds of an inch,

S is the minimum tensile strength of the steel plates in tons per square inch,

J is the strength of rivetted joint per cent of solid plate,

R is the inner radius of curvature, in inches,

C for single rivetting is 3.3,

C for double rivetting is 2.9,

C for treble rivetting is 2.83.

23. In the case of boilers built of iron and which are not covered in this Part of these regulations the question will be referred to the Board as to the pressure to be allowed.

APPENDIX

ORDINARY CHAIN AND ZIG-ZAG RIVETED JOINTS

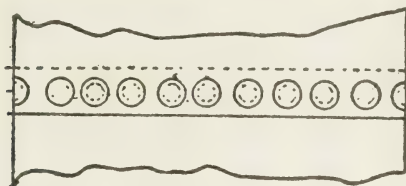


Fig. 1.

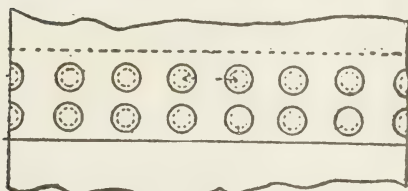


Fig. 2.

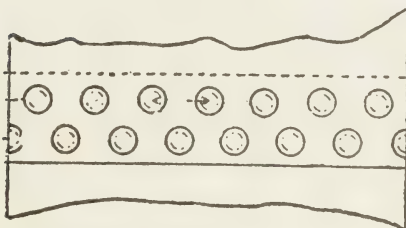


Fig. 3.

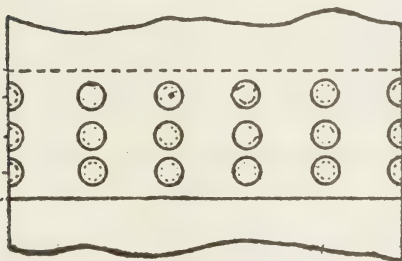


Fig. 4.

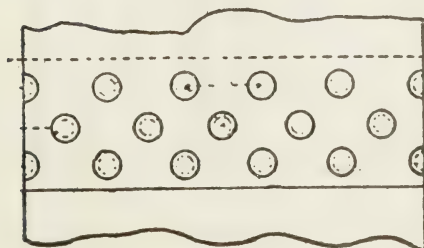


Fig. 5.

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ORDINARY CHAIN AND ZIG-ZAG RIVETED JOINTS—Continued

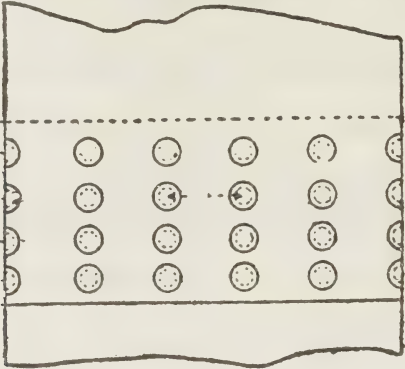


Fig. 6.

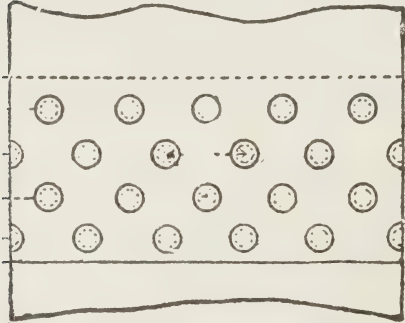


Fig. 7.

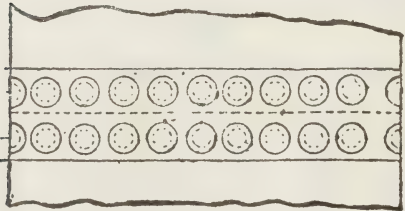


Fig 8.

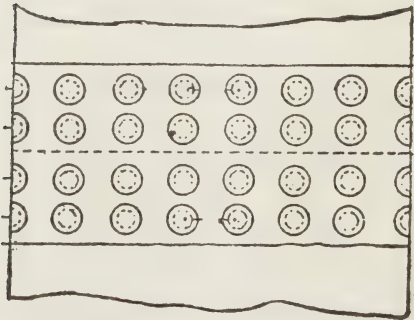


Fig. 9.

Canada Shipping Act—continued

ORDINARY CHAIN AND ZIG-ZAG RIVETED JOINTS—Concluded

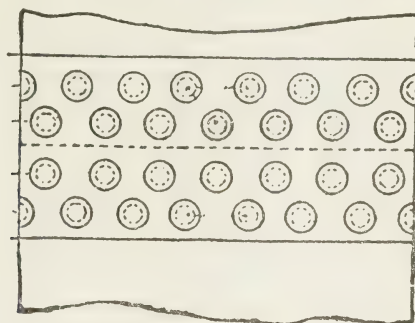


Fig. 10.

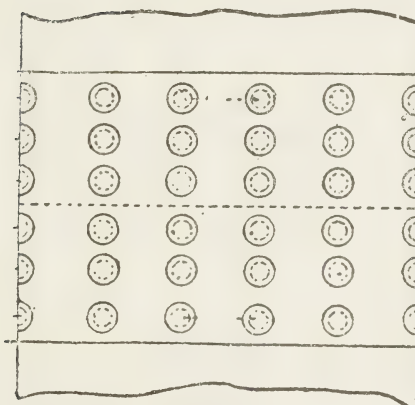


Fig. 11.

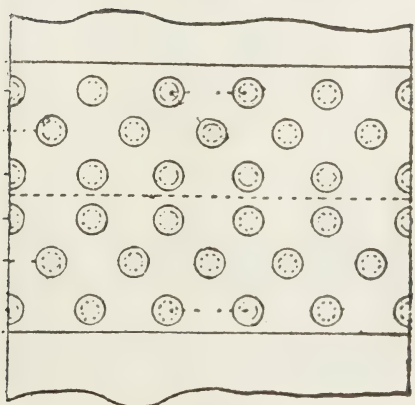


Fig. 12.

Canada Shipping Act—*continued*

CHAIN AND ZIG-ZAG RIVETED JOINTS IN WHICH EVERY ALTERNATE
RIVET IS OMITTED IN THE OUTER ROW OR IN THE
OUTER AND INNER ROWS

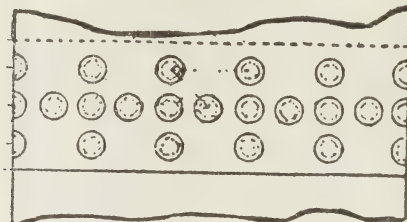


Fig. 13.

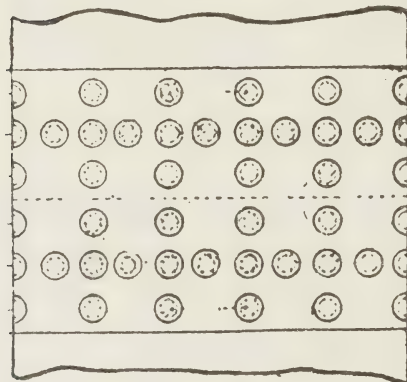


Fig. 14.

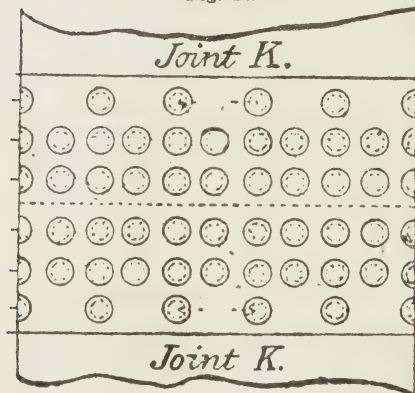


Fig. 15.

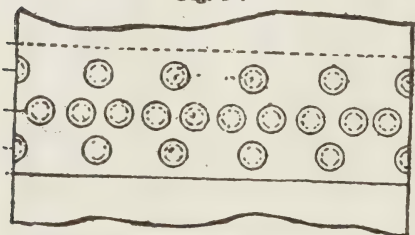


Fig. 16.

Canada Shipping Act—continued

CHAIN AND ZIG-ZAG RIVETED JOINTS—Concluded

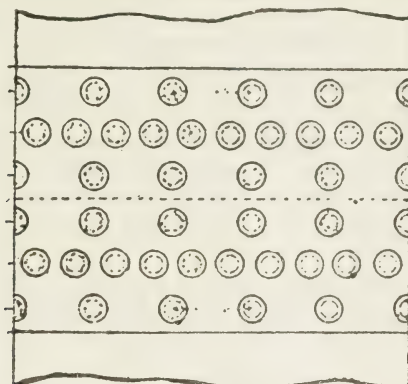


Fig. 17.

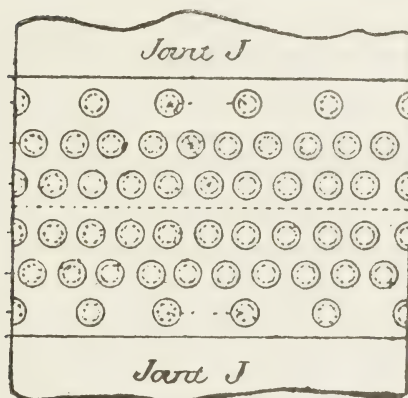


Fig. 18.

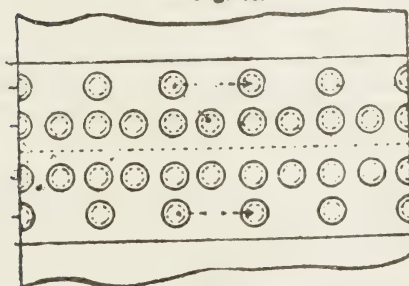


Fig. 19.

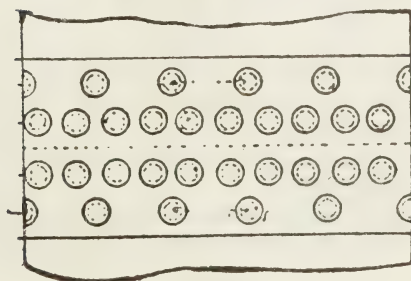


Fig. 20.

Canada Shipping Act—continued

PART V

BOILER MOUNTINGS

1. (a) Every boiler must have at least two suitable independent means of indicating the water level in it, and in boilers other than vertical boilers have marked on it in a contiguous position, easily seen, the level of the highest part of the combustion chamber or firebox.

(b) All double ended boilers shall have a glass water gauge on each side on or near to opposite ends and a set of test cocks at each end opposite the water gauges.

(c) All single ended boilers over 16 feet mean diameter shall have a glass water gauge on each side, single ended boilers under 16 feet in diameter shall have at least one glass water gauge near one side and one set of test cocks near the other side.

(d) All vertical boilers shall have a glass water gauge and a set of test cocks.

(e) The fittings carrying the "glass" of a water gauge, whether mounted direct on the boiler or on a stand or water column, shall be arranged with suitable cocks so that the "glass" may be "blown through" and so that in the event of a glass breaking it can be shut off and these cocks must be accessible from positions free from danger should a glass break.

(f) Test cocks where practicable should be fitted direct to the boiler shell, a set must consist of at least 3 cocks except in boilers 7' 6" in diameter or under where there may be two. For all vertical boilers above 7 feet high a set of test cocks must consist of at least 3.

2. (a) Stand pillars or columns for water gauges shall be not less than 2½ inches internal diameter for boilers over 10 feet in diameter, for boilers not exceeding 10 feet but over 7' 6" mean diameter they shall be at least 2 inches internal diameter, whilst those for boilers 7' 6" and under, mean diameter, shall be at least 1½ inches internal diameter.

(b) The stand pillars if mounted direct on the boiler shall have cocks (not valves) fitted between them and the boiler to allow them to be tested and cleaned with steam up, but if the internal diameter throughout the columns so mounted is not less than 2½ inches and proper arrangements are made for cleaning the column without detaching, the cocks need not be insisted on.

(c) If the stand pillars are fitted with connecting pipes these shall be of copper or other equally incorrodible metal and shall have an internal diameter not less than the following:—For stand pillars 2½ inches internal diameter the pipes shall be not less than 1½ inches, for stand pillars 2 inches internal diameter the pipes shall be not less than 1¼ inches diameter and for stand pillars 1½ inches internal diameter the pipes shall be not less than 1 inch internal diameter. The upper ends of pipes connecting stand pillars to the boilers must be arranged so that there is no pocket or bend where an accumulation of water from the condensation of the steam can lodge. They should not pass through the uptake if they can be arranged otherwise. If, however, this condition cannot be complied with they may pass through it by means of a passage at least 2 inches clear of the pipe all round, open for ventilation.

(d) The stand pillars when connected to the boiler by means of pipes must have terminal cocks (not valves) fitted direct to the boiler shell.

Canada Shipping Act—continued

3. A salinometer cock or valve must be fitted direct to each boiler in a convenient position. It must not be on the water gauge stand pillar. Whilst it is desirable that all large boilers should have salinometer cocks fitted this requirement need not be insisted on in boilers used exclusively in fresh water.

4. Each boiler shall have a separate steam pressure gauge placed where it can easily be seen. Double ended boilers shall have a pressure gauge at each end likewise placed where they can easily be seen.

5. (a) Each boiler must have at least two independent means of feed, each with its own feed check valve, the feed check valves being strong, substantial, bronze or gunmetal castings, and shall be of the screw down, non-return type unless there be fitted between them and the boiler a valve or cock. The feed check valves shall be bolted direct to the boiler or to a proper stop valve or cock which is bolted direct to the boiler. It is desirable that in all large boilers carrying high pressure there should be fitted between the check valves and the boiler a stop cock or valve to allow the check valves to be examined whilst steam is up.

The check valve when bolted direct to the boiler or the intervening stop valve or cock, when such is fitted, shall have a spigot of sufficient depth to pass beyond the plate to which it is bolted.

(b) In the case of boilers of the cylindrical multitubular return tube type not in excess of 10 feet in diameter, or in boilers of similar evaporative capacity one of the means for "feeding" may be an injector, and where an injector is fitted there shall be between it and the boiler, and bolted direct to the boiler, a suitable screw-down valve or a cock, arranged with a spigot as described above, and in addition there shall be bolted direct to the stop valve or stop cock fitted on the boiler a suitable non-return valve, unless the stop valve be of the screw-down, non-return type.

6. (a) Each boiler shall have a blow off valve fitted direct to the shell. For boilers over 10 feet in diameter the valve and its connections to the sea need not be more than $1\frac{1}{2}$ inches diameter, and may be generally about $\frac{1}{10}$ of an inch in diameter for each foot in diameter of the boiler. For boilers not exceeding 10 feet in diameter the blow-off may be a valve or cock and need not be more than 1 inch in diameter. If a cock be fitted arrangements must be made for locking it when shut.

(b) Blow-off valves or cocks and scum valves or cocks (when these latter are fitted) of two or more boilers may be connected to one common discharge, but when thus fitted there must be some suitable positive arrangement, such as a non-return valve or 3-way cock introduced that will automatically prevent the contents of one boiler being blown into another.

(c) The blow-off cock or valve on the ship's side must be fitted above the level of the stoke-hold plates in an accessible position and must be arranged so that it can be readily seen whether it is open or shut. The cock handle must not be capable of being removed unless the cock is closed and if a valve is fitted the wheel must be fixed to the spindle.

7. One main stop valve must be fitted to each boiler direct on the shell of the boiler. There shall be as few auxiliary stop valves as possible so as to avoid piercing the boiler shell more than is absolutely necessary. The arrangement, however, must be such that when more than one boiler is fitted, it is possible to supply the steam whistle, the steam steering gear, and the electric light machinery from at least two boilers.

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8. (a) All boiler mounting valves over $1\frac{1}{2}$ inches diameter must have outside screws, and their covers must be secured by bolts or studs and all are to be arranged to be shut with a right hand motion of the wheels, and must have means for clearly indicating whether they are open or shut.

(b) All openings in boilers, for steam or water connections except salinometer valves or cocks or test cocks, shall be fitted with flanged valves or cocks bolted direct to the boiler shell. Salinometer or test cock fittings when not attached to the boiler by flange connections shall have a threaded spigot to screw into the boiler plate, similarly with regard to pressure gauge cocks.

9. All cocks and valves connected to the boiler shall be such that it is seen without difficulty whether they are open or shut. When boiler mountings are secured by studs, the studs must have a full thread holding in the plate for a length of at least one diameter. If the stud holes penetrate the whole thickness of the plate the stud must be screwed right through the plate and be fitted with a nut inside the boiler. Where bolts are used for securing mountings they must be screwed right through the plate with their heads inside the boiler.

10. (a) All stop and safety valve chests and steam pipe fittings when subjected to saturated steam only may be of cast iron, but such valve chests and steam pipe fittings when subjected to steam of a temperature above 425 degrees Fahrenheit must be of cast steel or other approved material. Stand pipes or columns for water gauges, the cocks connecting them to the boiler shells, also feed check valves and blow-off valves or cocks are to be substantial gunmetal or steel castings.

(b) All boiler mountings must be approved as required in section 18, of Part I of these regulations.

11. (a) Every boiler in excess of 5 feet mean diameter, or of which the total heating surface exceeds 100 square feet, shall be fitted with two approved spring loaded safety valves, each having an opening through the seat not less than $1\frac{1}{2}$ inches diameter nor less than the diameter found by the rule set out in section 12. Boilers not in excess of 5 feet mean diameter and not having a total heating surface in excess of 100 square feet shall be fitted with safety valves as above, or may be fitted with one approved spring loaded valve not less than 2 inches diameter of opening through the seat, nor less than the diameter found by the rule in section 12. Water tube boilers or similar quick steaming boilers, no matter what their size or heating surface, shall have at least two safety valves fitted, each not less than $1\frac{1}{2}$ inches diameter through the seat nor less than the diameter found by the rule hereafter set out.

(b) All the safety valves of each boiler may be fitted in one chest which must be separate from any other valve chest and must be connected direct to the boiler by a strong and stiff neck. The neck shall be as short as practicable and shall have a flange to bolt it to the boiler shell. The passage through the neck should have a cross sectional area at least equal to one half the aggregate area of the safety valves in the chest. Each safety valve chest shall have a means of draining it, the drain pipe leading clear of the boiler to a tank or to the bilge.

(c) Safety valves shall be so arranged that the springs and valves are cased in so that the springs are protected from the steam and impurities issuing from the valves and that provision is made for preventing the valves lifting out of their seats should a spring break. The safety valves must

Canada Shipping Act—continued

be arranged and fitted so that they can be lifted by easing gear and turned round on their seats by hand. The easing gear must be capable of lifting all the valves on a boiler together and shall be such that it can be worked from some easily accessible safe place.

The compressing screws for loading the springs must abut against metal stops or washers when the loads sanctioned by the Inspector are on the valves, and proper means for locking the valves to prevent them being overloaded or tampered with shall be provided.

(d) The clearances in the moving of safety valves and between coils of springs shall be such as to give ample lift, and shall be such that the valves can lift from their seats a vertical distance equal to at least one-eighth of the diameter through the valve seats. Whilst clearances to allow for a minimum lift of $\frac{1}{8}$ th the valve diameter are required, it is to be noted that the actual clearances between coils of springs must be considerably in excess of this and springs having a clearance of less than $\frac{3}{16}$ inch between the coils should not be accepted.

(e) Care should be taken in designing safety valves that the moving parts and guides, etc., in which they may run are of material not liable to seize through corrosion or otherwise, thus, steel spindles must be arranged to work in bronze bushings or bushings of similar metal and valve discs and seats must be bronze, gunmetal or similar metal.

The valve discs shall be properly secured to the spindle and the valve seats shall be secured in place with studs, or other ample provision shall be made to prevent backing out.

The whole of the valve, spring columns, covers, fastenings, etc., shall be of such material and of such strength and so arranged as to withstand with safety the stresses they will be subjected to.

12. (a) The minimum aggregate area of the safety valves of the ordinary type to be fitted on each boiler, whether coal fired or oil fired and whether working under natural, forced or induced draught, shall be found by the following formula:—

$$A = H \times \frac{K}{P + 15}$$

where A is the aggregate area of the safety valves, in square inches,

H is the total heating surface of the boiler, in square feet,

P is the working pressure, in pounds per square inch,

$K=1.25$ for coal fired boilers, natural draught,

$K=1.5$ for oil fired boilers and for boilers working under forced draught.

(b) The waste steam pipe and the passages leading to it should have a cross sectional area not less in square inches than 0.01 times the total heating surface in square feet of the boiler or boilers discharging through it nor in any case should it be less than 1.1 times the combined areas of the safety valves as given by the rule in the preceding paragraph of this section.

(c) All safety valves must be set under steam in the presence of the Inspector to the assigned pressure and notwithstanding anything contained in this Part of these regulations no safety valve shall be accepted by an Inspector unless it satisfactorily passes the following test: During a test of at least 15 minutes duration with all main and auxiliary stop valves closed and under full firing conditions the accumulation of pressure must

Canada Shipping Act—continued

not exceed 10 per cent of the loaded pressure. During the test no more feed water should be supplied than is necessary to maintain a safe water level.

13. The following formulæ shall be used for finding the size of wire to be used for the springs of safety valves and for finding the diameter and number of free coils of the springs:—

$$(a) \text{ For size of wire:—} d = \sqrt[3]{\frac{s \times D}{c}}$$

where s is the load on the spring, in pounds,

D is the diameter of the spring, from centre to centre of the wire, in inches,

d is the diameter or side of square of the wire, in inches,

$c=8,000$ for round steel,

$c=11,000$ for square steel.

(b) For finding the number of free coils:—

$$N = \frac{K \times C \times d^4}{s \times D^3}$$

where N is the number of free coils in spring,

K is the compression, in inches, and should be not less than one-quarter the diameter of the valve.

d is the diameter of wire, or side of square of the steel, in sixteenths of an inch,

$C=22$ for round, and 30 for square steel,

s is the load on the spring, in pounds,

D is the diameter of the spring, from centre to centre of wire, in inches.

The steel of safety valve springs should not, as a rule, be less than $\frac{1}{4}$ inch diameter or side of square.

PART VI

STEAM, FEED DELIVERY, AND OTHER PIPES SUBJECT TO INTERNAL PRESSURE.

Copper Pipes and Tubes

1. (a) No pipe made from the electro-deposition of copper on a mandril shall be used.

(b) All copper pipes shall be properly annealed before putting in place.

(c) All copper pipes subject to a pressure in excess of 75 pounds per square inch shall be solid drawn.

(d) No copper pipe shall be used for superheated steam.

2. No steam pipe intended for a working pressure of over 180 pounds per square inch shall be made of copper where the internal diameter exceeds 5 inches.

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3. (a) Copper steam pipes, on completion and prior to being fitted in place, shall be subjected to hydraulic test to at least twice the working pressure.

(b) Feed delivery pipes shall be subjected to hydraulic test to at least 2.5 times the working pressure allowed on the boilers.

4. The working pressure of copper pipes shall be determined by the following formula:—

$$\text{working pressure} = \frac{t-3}{D} \times F$$

where D is the internal diameter, in inches,

t is the thickness in one-hundredths of an inch,

F for solid drawn steam pipes is 60, and for brazed steam pipes, 45.

F for solid drawn feed pipes is 48, and for brazed feed pipes, 36.

5. When copper pipes are bent they must be made thicker to provide for the thinning at the bend, and in no case should the radius of curvature at the centre line of the pipe be less than twice the external diameter of the pipe.

Wrought Iron and Steel Pipes

6. Wrought iron and wrought steel may be used in the making of steam, feed delivery and other such pipes, but cast iron shall not be used.

7. Welding of the seams shall be done by hammering or rolling the joint.

8. On completion of any work which involves heating, whether for welding the joint, welding on the flanges, hot bending the pipe, or for any other purpose, the pipe shall be carefully annealed.

9. Mild steel for lapwelded steam pipes may have a tensile strength not exceeding 28 tons per square inch with a minimum elongation of 25 per cent on a standard test piece, standard test piece A shown in the Appendix to Part II of these regulations.

10. Feed delivery pipes if made of steel shall be solid drawn cold finished.

11. (a) Iron or steel pipes, on completion and prior to being fitted in place, shall be subjected to hydraulic test to at least 3 times the working pressure.

(b) Feed delivery pipes if of iron or steel shall be subjected to hydraulic test to at least 4 times the working pressure allowed on the boilers.

12. The working pressure of wrought iron or steel pipes shall be determined by the following formulæ:—

(a) For solid drawn cold finished steam pipes up to 28 tons tensile strength:—

$$\text{working pressure} = \frac{t-10}{D} \times 120$$

Canada Shipping Act—continued

(b) For solid drawn hot finished steam pipes up to 28 tons tensile strength:—

$$\text{working pressure} = \frac{t-12}{D} \times 120$$

(c) For welded steam pipes with or without covering straps:—

$$\text{working pressure} = \frac{t-12}{D} \times 90$$

(d) For feed delivery pipes:—

$$\text{working pressure} = \frac{t-8}{D} \times 100$$

where D is the internal diameter, in inches,

t is the thickness in one-hundredths of an inch.

13. (a) Wrought iron or steel pipes when in excess of 2 inches diameter shall be arranged to be connected by suitable flanges of ample strength and stiffness fastened with bolts. For such pipes not exceeding 2 inches in diameter screwed connections may be used.

(b) Flanges must not be of cast iron but must be of wrought iron or steel forged out of the solid of material of ductile quality, or they may be steel castings of ductile material.

(c) Flanges are to be fitted to iron or steel pipes by being screwed with a “vanishing” thread, so that the threaded portion of the pipe shall be wholly within the flange, or they may be attached by rivets or by welding or by expanding. In the case of welding or expanding the method employed shall be one approved by the Board.

PART VII**INTERNAL COMBUSTION ENGINES**

1. (a) The engine room and the compartment in which the fuel tanks are situated shall be efficiently ventilated.

(b) If the engines are of the closed-in type they must be so fitted that the lubricating oil can be drained when necessary and they shall have portable doors arranged for the inspection of the cranks, bearings, etc. Satisfactory provision is to be made to intercept leakage of oil, whether fuel or lubricating, from the engines, especially in the case of engines fitted in wooden ships.

The engine room platforms shall be carried on metal framework and due precautions shall be taken to catch any overflow of fuel from the engines and to prevent an accumulation of inflammable gas.

(c) Where fuel having a flashpoint lower than 150 degrees Fahrenheit is used donkey boilers, when fitted, shall be placed in an efficiently ventilated compartment separate from the engine room or the compartment in which the fuel tanks are fitted.

Canada Shipping Act—continued

(d) Carburetors and vaporizers should be so designed that when the engine is stopped the fuel supply is automatically shut off. If an overflow is provided in the carburetor or vaporizer a gauze covered tray or other suitable device with means of draining must be fitted to prevent the fuel flowing to the bilges.

Suitable provision in the way of strong metallic gauze diaphragms should be fitted between the carburetor or vaporizer and the cylinders and the air inlets.

(e) Where electrical ignition is fitted the leads must be well insulated, suitably protected from mechanical injury and kept remote from pipes or tanks containing low flashpoint fuel. The commutator must be enclosed and the spark coils must be so placed that they are not exposed to explosive vapours. An exposed spark gap should not be fitted.

(f) In engines where lamps are used for ignition or for vaporizing, arrangements should be made for securing them in place and the flame should be enclosed when in use.

2. (a) The reversing gear, also clutch, where fitted, must be strongly constructed, and easily accessible for examination and adjustment.

(b) In engines above 60 *brake horse power*, which are not reversible, and which are manœuvred by clutch, a governor or other arrangement must be fitted to prevent racing of the engine when the clutch is out. Engines above 300 *brake horse power* should be reversible.

(c) Where engines are started by compressed air the reservoirs should have sufficient capacity to ensure ample manœuvring power for the engines, similarly with any other form of starting power, ample capacity for manœuvring shall be provided without recharging.

3. (a) Filters for the fuel oil are to have bolted covers. Escape valves are to discharge into pipes leading back to the tanks or to the atmosphere above deck, in the latter case the upper ends of the pipes are to be turned down and fitted with wire gauze diaphragms.

(b) Silencers are to be strongly constructed and so arranged that they can be readily opened up for cleaning and inspection.

(c) All fuel or compressed air pipes are to be made of steel or annealed seamless copper, with flexible bends. It is preferable that metal to metal joints should be used where the pressure exceeds 400 pounds per square inch.

A cock or valve shall be fitted at each end of the pipe conveying the fuel from the tank to the carburetor or vaporizer and the fuel pipes shall be led so that they are protected from mechanical injury and are exposed to view throughout their length.

Exhaust pipes which pass through wood decks or close to combustible material must be effectively insulated. If the exhaust pipe is led overboard near to the waterline it must be so arranged that water will not get into the engines.

4. Efficient arrangements shall be made for the cooling of cylinders, silencers and exhaust pipes, proper test and drain cocks, in sufficient number being fitted as required. An escape valve should be fitted near each cylinder head to prevent excessive pressure. Ample provision should be made for a supply of circulating water, having due regard to the conditions under which the ship will be operated and an efficient strainer should in all cases be fitted between the inlet valves and the circulating pumps so arranged that it may be cleaned and overhauled while the engines are working.

Canada Shipping Act—continued

5. Main engine cylinder heads, cylinders not fitted with liners and cylinders for air compressors, for starting and fuel injection purposes, are to be tested by hydraulic pressure to twice their working pressure. Cylinder water jackets are to be tested to a pressure of at least 50 pounds per square inch and exhaust pipes and silencers to 100 pounds per square inch.

6. Engines of the Diesel type are to have safety valves fitted to the cylinders and loaded to not more than 40 per cent above the designed maximum pressure in the cylinders, and these are to discharge where no damage can occur.

7. Air compressors should not draw air from the crank cases of the engines. The air is to be efficiently cooled after each compression stage and should have a final temperature not exceeding 20 degrees Fahrenheit above that of the cooling water before being allowed to enter air reservoirs. The compressors are to be fitted with safety valves, pressure gauges, and satisfactory arrangements for preventing the entrance of dirt and the delivery of oily air. The cooler coils are to be readily accessible for cleaning and removal.

8. In dealing with the question of fuel oil tanks they will be considered under two heads, those built in and forming part of the ship's structure, and those built separate and fitted into the ship. The provisions of this section of this Part of these regulations are intended to apply mainly to tanks built separate, but where applicable as regards ventilation of tanks, fitting of gauze wire to outlets, etc., they should be applied to all fuel oil tanks.

Generally speaking the inspection of oil tanks forming part of the ship's structure will be dealt with in instructions as to the inspection of hulls and be attended to by the Inspector of Hulls and Equipment. Separate fuel oil tanks will be inspected by the Inspector of Boilers and Machinery and the following is for the information of Inspectors and others concerned:—

- (a) Tanks are to be strongly constructed and sufficient to withstand the stresses due to being partly full with the ship in a seaway and they are to be properly chocked and secured in place. As a general rule they should be of steel plate not less than $\frac{1}{4}$ inch thick and the seams should be at least double riveted.
- (b) Where oil of a flashpoint lower than 150 degrees Fahrenheit is used the fuel tanks are to be fitted in compartments separate from the machinery or cargo spaces, divided from them by properly constructed steel bulkheads, and if an opening from the engine room to the tank compartment is provided it shall be fitted with a steel door. In the case where the oil fuel has a flashpoint of 150 degrees or upwards the fuel tanks need not necessarily be in a compartment separate from the engine room, provided the arrangement has been approved by the Board. Provided, further, that when oil fuel, no matter of what flashpoint, is carried in a double bottom, there may be fitted in the engine room a reserve tank capable of holding a supply sufficient for about 12 hours.
- (c) The tanks should be provided with metal trays to prevent leakage from them flowing into the bilges or saturating woodwork. If preferred the arrangement to catch leakage may be a well in the tank compartment fitted with separate pumps and if such arrangement be adopted, woodwork below the tanks must be sheathed with galvanized iron or lead and made oil tight. Proper arrange-

Canada Shipping Act—continued

ments are to be provided for emptying the tanks and draining the trays beneath them. In the case of tanks containing low flashpoint oil it is desirable that the arrangement for catching leakage should be trays and not drainage wells and that unless arrangements can be made for continuously draining these trays overboard, they shall be covered with substantial gauze wire screens.

- (d) Fuel tanks with all their fittings are to be tested to a head of at least 15 feet of water and where worked under pressure the test is to be twice the working pressure but not less than a head of 15 feet of water.
- (e) Tanks not under pressure are to be fitted with vent pipes leading above deck, the ends of these being turned down and fitted with strong gauze wire diaphragms. Tanks worked under pressure are to be fitted with suitable spring loaded relief valves, loaded to 5 per cent above the working pressure, the discharge from which shall be led overboard or above deck through wire gauze diaphragms, the pipes if led above deck being turned down at the ends, or a suitable approved relief valve may be fitted to the discharge end of the pipe. Filling pipes should be carried up through the deck and must be provided with proper means for closing them when not in use.
- (f) Tanks are not to be fitted with gauge glasses, except in the case of a reserve tank of moderate dimensions, fitted in the engine room as described in paragraph (b), but these glasses if fitted must be suitably protected from risk of breaking and arranged so that the oil may be shut off immediately in the event of the glass breaking.
- (g) All openings in fuel oil tanks for pipe connections, except vent pipes or relief valve discharges shall have proper cocks or valves fitted direct on the tanks.

9. Having regard to the risk of fire from short circuiting of electric light wiring, sparking at switches or fuses, etc., especially where "low flash-point" oils are used as fuel. Inspectors shall insist on all due precautions being taken in fitting electric light appliances in engine rooms or compartments used exclusively for the stowing of tanks containing fuel oil. The following, therefore, is for the guidance of Inspectors and others concerned:—

- (a) Electric light wiring when led into such oil fuel compartments should be carried in proper metal conduits. If possible the fitting of switches or fuses in such compartments should be avoided but if found necessary they shall be substantial in make and shall be of the enclosed type.
- (b) Electric light wiring carried near fuel oil tanks in the engine room should be also led in metal conduits, and switches or fuses should be kept as far as possible from the tanks. When it is necessary to fit switches or fuses near to fuel oil tanks in the engine room they should be substantial in make and of the enclosed type.
- (c) Electric lamps when fitted in fuel oil compartments as above or in the engine room close to fuel oil tanks should have proper wire guards over the globes.

10. The question of the diameter of crank, thrust, tunnel and propeller shafts shall be referred to the Board for a decision and the Board shall

Canada Shipping Act—continued

have power in any general or particular case to lay down the size for such shafts, having due regard to the type of engine fitted, whether four cycle or two cycle, single acting or double acting, maximum pressures carried, etc.

11. Notwithstanding anything hereinbefore set out an Inspector before granting a certificate to a ship propelled by internal combustion engines is to satisfy himself that all the parts are of sufficient strength, having due regard to the maximum pressures carried, speed of the engines in revolutions per minute, ratio of explosion strokes, etc., and he is also to satisfy himself as to the protection afforded both the engine room operators and to the ship against danger from fire or explosion, and he shall take such means as he may deem advisable in any particular case so to assure himself. At the same time when considering the case of small ships or launches not engaged on long trips to sea especially where the engine space and fuel space is open to the atmosphere it may not be necessary to require full compliance with the foregoing provisions in this Part, but in all such cases before issuing a certificate an Inspector shall assure himself of the sufficiency and the strength of all parts, protection against risk of fire, explosion, or of injury to the operators, and in case of doubt the matter shall be referred to the Board for a decision.

32. Regulations for the inspection of classed ships

P.C. 5094

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 5th day of November, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Transport and pursuant to the provisions of paragraph (k) of subsection (1) of section 405 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to make and doth hereby make and establish the regulations annexed hereto entitled "Regulations for Inspection of Classed Ships."

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS FOR INSPECTION OF CLASSED SHIPS

1. In these regulations, unless the context otherwise requires:

- (a) "Chairman" means the Chairman of the Board of Steamship Inspection;
- (b) "classed ship" means a steamship registered in Canada which is classed with a classification society;
- (c) "classification society" means a society or association for the classification and registry of shipping approved by the Minister of Transport;
- (d) "classification survey" means a survey of a steamship made by a surveyor to a classification society;

Canada Shipping Act—continued

- (e) "inspection" means inspection by a steamship inspector;
- (f) "inspector" means a steamship inspector appointed under section 372 of the Canada Shipping Act, 1934.

2. Subject to these regulations, where a steamship is surveyed by a surveyor to a classification society, such ship shall have the hull, equipment and machinery inspected by a steamship inspector pursuant to the provisions of section 387 of The Canada Shipping Act, 1934, at least once every five years.

3. Application for acceptance of a classification survey of the hull, equipment and machinery of a steamship in lieu of annual inspection shall be made in writing by the owner of the ship, or his duly authorized representative, to the Chairman.

4. A written statement from the classification society shall be submitted stating that the steamship is in class, or recommended for retention in class, with particulars of the classification survey of the ship in support thereof.

5. Where an inspection certificate is issued in respect of a classed ship the certificate shall be endorsed by the steamship inspector to show that the classification survey is accepted in lieu of annual inspection.

6. Where an inspection certificate issued in respect of a classed ship has been endorsed to show that a classification survey is accepted in lieu of inspection and the ship is taken out of class, the owner of the ship, or his representative, shall forthwith notify the Chairman in writing.

7. In addition to the inspection provided for by section 2 of these regulations, a classed ship shall be subject to annual inspection in respect of life saving equipment, fire extinguishing equipment and precautions against fire, and such other matters required for the issuance of an inspection certificate and not covered by a classification survey, and the steamship inspector may at any time make such inspection of the hull, equipment and machinery of the ship as he sees fit.

8. These regulations shall not apply to any steamship until after the first inspection has been made of the hull, equipment and machinery of the ship.

9. These regulations shall not apply to any passenger steamship carrying more than twelve passengers.

10. These regulations shall have full force and effect notwithstanding anything contained in the Regulations Respecting the Inspection of Boilers and Machinery of Steamships made under Order in Council P.C. 3111 of July 13, 1948.

Canada Shipping Act—continued**33. Canadian Rules and Regulations relating to the examination of Masters and Mates of Home-Trade, Inland and Minor Waters Vessels, 1948**

P.C. 5663

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 10th day of December, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 126 of the Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The Canadian Regulations relating to the Examination of Masters and Mates of Home-Trade, Inland and Minor Waters Vessels, established by Order in Council P.C. 1511 of 8th April, 1948, are hereby revoked; and

2. The annexed "Canadian Rules and Regulations relating to the Examination of Masters and Mates of Home-Trade, Inland and Minor Waters Vessels, 1948" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

CANADIAN RULES AND REGULATIONS RELATING TO THE
EXAMINATION OF MASTERS AND MATES OF HOME-TRADE,
INLAND AND MINOR WATERS VESSELS, 1948

General Instructions

I. These regulations are issued in pursuance of section 126, Part II of the Canada Shipping Act, 1934.

II. Certificates of Competency or Service may be issued as Masters or Mates of vessels, engaged in the home-trade or trading on the inland or minor waters, of the particular class and description the case requires, i.e., in the case of sailing ships for either a square rigged or fore-and-aft rigged vessel, and in the case of steamships for a steamship, a steamship under 150 tons gross, a licensed ferry steamship, a tug-boat or alligator or warping tug-boat.

III. No person shall act as an Examiner of candidates for Masters' or Mates' Certificates of any grade until he has been duly appointed as such Examiner; and no certificate as master or mate will be issued to any applicant, originally, or the grade of any such certificate raised, except on the report of an Examiner of Masters and Mates that such applicant has paid the fee and has passed the required examination satisfactorily.

IV. Examiners are stationed at the ports of Halifax and Yarmouth, Nova Scotia; Quebec and Montreal, Quebec; Toronto, Ontario; and Vancouver, British Columbia.

Canada Shipping Act—continued

V. On application to any one of the Examiners, or to the Deputy Minister or the Director of Marine Services, Department of Transport, Ottawa, an intending candidate will be supplied with an application form, in duplicate, to be filled in and signed with the candidate's full name. This form properly filled in, together with the candidate's testimonials and discharges should, if possible, be lodged with the Examiner not later than one day before the date of examination. As discharges and testimonials may have to be verified, it is desirable that they should be handed to the Examiner together with the form of application at least a week before the date of examination. The Examiner should be particularly careful to ascertain that there are no gaps in the candidate's service which are not properly accounted for before he is allowed up for examination. Except in the case of examination for Minor Waters Certificates no candidate will be examined unless he has served at sea in any capacity on deck for 12 months within a period of five years immediately preceding the date of examination.

VI. Testimonials as to character, sobriety, experience, ability, and good conduct on board ship will be required of all candidates, and no person will be examined until such evidence is produced.

VII. Should any doubt exist as to the age or nationality of a candidate, he will be required to produce a certificate of birth, or proof of his nationality.

Only British subjects by birth or naturalization will be allowed to take the examination.

VIII. It is provided by section 131 of the Canada Shipping Act, 1934, that any person who makes, procures to be made or assists in making any false representation for the purpose of procuring either for himself or any other person a Certificate of Competency or Service as master or mate is guilty of an indictable offence.

IX. On application to the nearest Examiner, or to the Deputy Minister or the Director of Marine Services, Department of Transport, Ottawa, intending candidates will be furnished with full information in regard to examinations.

X. The Deputy Minister of Transport or the Director of Marine Services will from time to time issue to Examiners such instructions in regard to examinations as may be deemed advisable and such instructions must be closely adhered to in every case.

XI. If during the progress of the examination the Examiner finds that a candidate is afflicted with deafness, with an impediment in his speech, or with some other physical or mental infirmity, and he is satisfied upon further investigation that the degree of deafness or of the impediment or other infirmity is such as to render the candidate incompetent to discharge the ordinary duties of a mate or master, he should not allow the candidate to complete his examination and should return his examination fee; but every case in which this action is taken must be reported to the Deputy Minister of Transport or the Director of Marine Services.

If the candidate subsequently produces a medical certificate to the effect that his hearing, speech, or physical or mental condition has improved or is normal, consideration may be given to the question of allowing the candidate to sit for examination.

XII. If after a candidate has passed the technical examination it is discovered on further investigation that his service is insufficient to entitle

Canada Shipping Act—continued

him to receive a certificate of the grade for which he passed, the certificate will not be granted to him, but if the error in the calculation of his service did not occur through any fault or wilful misrepresentation on his part, he may either be given a certificate of a lower grade or have the fee paid by him placed to his credit. The superior certificate will not be granted until the candidate has performed the amount of service in which he was deficient and has been re-examined, if re-examination is considered necessary.

XIII. In all cases of failure except in signalling, the candidate must be examined anew. A candidate will not be allowed to undergo examination for the same grade of certificate twice in one week. In the case of a second failure or any subsequent failure in navigation or seamanship an interval of two months must elapse from the date of the last failure before a candidate can be re-examined.

Candidates failing in the seamanship portion of the examination through serious weakness in practical knowledge may, at the Examiner's discretion, be required to perform further sea service before being re-examined. Such sea service will not exceed six months, and may be performed in any capacity on deck in any vessel plying on waters of a grade acceptable for the examination in question. The Examiner, in making his report, should state what amount, if any, of further service afloat the candidate must perform.

XIV. A candidate who is eligible for examination for any grade of certificate for which signalling is required may take this part of the examination at any time within the three months immediately before or after he presents himself for the main examination.

A candidate who fails in signalling but passes the remainder of the examination may, at any time within the three months following his first attempt, be re-examined in signalling only, and if he then passes, will receive his Certificate of Competency.

Subject to the above conditions, a candidate may be allowed to take the signalling examination in any week during which examinations of masters and mates are being held at the port, but the special fee for this examination (see Chapter IV) must be paid for each separate attempt.

XV. In the event of misconduct on board ship, or desertion, or for any cause requiring disciplinary action, a candidate may be refused examination until proof of good conduct is produced covering a specified period following the bad report.

XVI. A candidate applying for examination for a higher grade certificate than that which he already holds will be required to pay the full fee for such examination, and to deliver to the Examiner his present certificate before a new one will be issued to him. In case of failure this certificate will be returned to him.

XVII. The holders of Cargo Steamship Certificates of Competency issued before the coming into force of these revised regulations shall be entitled to all the rights and privileges of those certificates, or, in lieu of such certificates may have issued to them steamship certificates of the same rank and for the same trade or waters, provided that, after payment of the required fee, they pass the relevant oral examination contained in these Regulations. In the event of failure the Regulations for re-examination contained herein shall apply.

Canada Shipping Act—continued

XVIII. An applicant for a certified copy of a lost certificate, either of competency or service, must fill in a form of application, giving all the particulars required. An affidavit as to the circumstances in which the certificate was lost must be made before a Magistrate. This form must then be handed to an Examiner of Masters and Mates who will forward it to the Deputy Minister or the Director of Marine Services, Department of Transport, Ottawa.

XIX. The Deputy Minister may upon such terms and conditions as he deems fit, cause a copy, or duplicate, of the original certificate to be made, certified and delivered to such applicant.

The Sight Tests

XX. Every candidate for a certificate of any grade must pass the prescribed sight tests before a certificate can be issued to him. If circumstances render it necessary for him to proceed with the examination in navigation and seamanship before undergoing the sight tests, he should be informed that the examination in navigation and seamanship will be cancelled in the event of his failure to pass either of the sight tests.

Detailed information with regard to the conduct of the tests will be found in Appendix B.

(1) The Sight Tests are:

(a) Letter test.

(b) Lantern test.

(2) Every candidate for a Certificate must pass the letter test.

(3) Every candidate must undergo the lantern test on every occasion on which he presents himself for examination for his first Certificate of Competency, but if he then passes, he will not be required to undergo the lantern test on any subsequent occasion. (For exception to this rule see last paragraph of Appendix B.)

No candidate who holds a Certificate of Competency should be examined in the lantern test except as provided in last paragraph of Appendix B.

(4) Candidates who fail to pass the prescribed letter test may present themselves for re-examination at intervals of three months, but candidates who fail to pass the lantern test may only be re-examined by an appeal to the Deputy Minister or the Director of Marine Services, who may, if he thinks fit, submit the case to a special Examiner or body of Examiners for further examination.

(5) When a candidate fails to pass the lantern test, the Examiner will point out to him the conditions under which he can appeal. Appeals are to be made through the Examiner and forwarded to the Supervising Examiner of Masters and Mates of the Division, with the Examiner's remarks.

(6) The fee paid for examination for a Certificate of Competency includes the fee of one dollar for examination in letter and lantern tests, and if the candidate fails to pass these tests the fee paid will, with the exception of one dollar, be returned to him.

(7) Only examiners who have themselves passed the sight tests are to undertake these examinations.

Canada Shipping Act—continued

- (8) The sight tests are open to all masters, mates or other persons employed or wishing to be employed on vessels engaged in the home-trade or trading on the inland or minor waters of Canada, and all such persons are recommended to take the earliest opportunity to ascertain by means of these tests whether their vision is such as to qualify them for service in their respective capacities.
- (9) Any person serving or intending to serve in the mercantile marine, if desirous of undergoing the sight tests, must make application to an Examiner of Masters and Mates, and must pay the fee of one dollar. This fee will be payable on each occasion on which a candidate is examined as to sight tests only.
- (10) Whenever the holder of a certificate of any grade fails to pass either of the sight tests and there is reason to believe that he is from incompetency unfit to discharge his duties, the Minister may, in the public interest, cause an inquiry to be held by a court, having jurisdiction to cancel or suspend such certificate; but in the alternative, the Minister may accept the voluntary surrender of the certificate until such time as the applicant succeeds in passing the test in which he failed.

CHAPTER I

RULES AND REGULATIONS

QUALIFICATIONS FOR CERTIFICATES

(In these Regulations the term "at sea" is used when referring to service in any waters, whether foreign-going, home-trade, inland or minor waters. See Chapter II for details).

HOME-TRADE

1. MATE OF A HOME-TRADE STEAMSHIP OR SAILING VESSEL

- (1) A candidate must be not less than twenty-one years of age, and must have served thirty-six months at sea, twelve months of which must have been as wheelsman or as seaman performing wheelsman's duties; or
 - (a) he must have served forty-eight months at sea, comprising twenty-four months in the home-trade or foreign-going and twenty-four months on the Great Lakes, twelve months of which must have been as wheelsman; or
 - (b) he must have served twelve months as Mate of a Great Lakes steamship which is required by law to carry a certificated Mate whilst holding a Certificate of Competency as Mate of a steamship or cargo steamship on the Inland Waters.
- (2) *In Navigation*—A candidate will be required:
 - (a) to write a legible hand and spell correctly—to be tested, if necessary, by one quarter hour's dictation;
 - (b) to understand multiplication and division by logarithms;
 - (c) to work a day's work;
 - (d) to find the latitude by meridian altitude of the sun;

Canada Shipping Act—continued

- (e) to determine a position line from an observed altitude of the sun by longitude by chronometer method or by the intercept method at the discretion of the candidate;
- (f) to find the true azimuth of the sun by the Time Azimuth Tables, thence the error of the compass, also the deviation, the variation being given;
- (g) to take a bearing by compass; be conversant with the use of a Mercator chart, and be able to find on a chart or plan the course or courses to steer and the distance on each course from one given position to another; to find the ship's position, together with the set and drift (if any) from cross bearings of two objects; to find the ship's position from two bearings of the same object, the course and distance run between the bearings being given, making due allowance for a given tide or current: also the distance of the ship from the object or any given position at the time of taking the second bearing; to find on a chart or plan the course to steer by compass in order to counteract the effect of a given tide or current, and to find the distance the ship will make good toward a given point in a certain time;
- (h) to find the approximate time of high and low water with or without the aid of tide tables; to explain orally the markings, signs and abbreviations on charts or plans, and how to construct a line of soundings; to know the Canadian system of buoyage.

(3) In Seamanship

- (a) A candidate will be required to know and understand all the articles of the Rules of the Road as regards both steamers and sailing vessels, their regulation lights, and fog and sound signals and write answers to questions thereon which the Examiner will give him. His knowledge of this subject will be tested with the aid of models. (In examinations held in Ontario, Quebec and Eastern Canadian ports the Examiner may at his discretion require a thorough knowledge of the Rules of the Road for the Great Lakes in addition to the International Rules of the Road.) He must be able to describe the signals of distress; the signals to be made by a ship wanting a pilot; also the use and management of the rocket apparatus for the rescue of the crew of a stranded vessel.
- (b) He must be able to mark and use the lead and log lines, to understand the care and useage of mechanical logs and sounding machines, to moor and unmoor a vessel, to keep a clear anchor, and to lower and manage a ship's lifeboat in all weathers. He will be also questioned regarding a lifeboat's equipment and the general requirements for proficiency in connection with the "Safety of Life at Sea" regulations. He must know how to keep a ship's log book, also the precautions to be taken for the ventilation of holds and the dunnaging, stowage, loading and unloading of cargo, dangerous acids and explosives. He may be required to write answers to questions which the Examiner will give him on these subjects.

Canada Shipping Act—continued

- (c) He will be required to know how to use the sextant and to read off and on the arc. He must know the practical procedure of taking a meridian altitude or an observation for longitude, also the use and care of a chronometer.
- (d) He will be examined in seamanship generally either for "square rig", "fore-and-aft" or "steam", according to the certificate required.

If for steamer:

- (e) he must know the fittings for fire purposes;
- (f) he must understand the construction, use and action of bulk-head sluices and of water ballast tanks;
- (g) he must know the construction of the engine room telegraph and other telegraphs used on board ship;
- (h) he will be required to answer any other questions appertaining to the duties of mate which the Examiner may think necessary to ask.

(4) *In Signals*—A candidate must be able to send and receive signals in:—

- (a) British Semaphore up to eight words per minute;
- (b) Morse Code by flash lamp up to six words per minute;
- (c) International Code of Signals.

(For examination in Signals see Appendix A.)

2. MASTER OF A HOME-TRADE STEAMSHIP OR SAILING VESSEL

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea, including:—
 - (a) twelve months as mate of a home-trade steamship while holding the requisite mate's certificate; or
 - (b) twelve months as Master of a Great Lakes cargo or passenger steamship while holding requisite Certificate of Competency; or
 - (c) twenty-four months as second mate, or thirty-six months as third mate, in charge of a watch in a foreign-going or home-trade vessel other than a tug-boat, provided that he has served in such capacity whilst in possession of a Certificate of Competency as mate of a Home-Trade Steamship or Cargo Steamship, or a second mate's Foreign-Going Certificate.
- (2) *In Navigation*—A candidate, in addition to the qualifications for mate, will be required:
 - (a) to compute the true course and distance from one given position to another by Mercator's method;
 - (b) to find the true amplitude of the sun and the error of the compass therefrom, also the deviation, the variation being given; also to be able to use the ABC tables in lieu of the Burdwood or Davis azimuth tables, as may be required by the Examiner, for working a time azimuth problem;
 - (c) to determine a position line from the observed altitude of the sun by "longitude by chronometer" method or by the "intercept method" at the discretion of the candidate and to

Canada Shipping Act—continued

obtain a 'fix' by transferring such position line to noon in the case of a morning sight or by transferring a noon position line to cross the position line obtained in the afternoon (or *vice versa*);

- (d) to find the latitude by an altitude of the pole star using the pole star tables;
- (e) to write the adjustments of the sextant and the mode of finding the index error by both horizon and sun, and how to apply it (the candidate may be required to demonstrate to the Examiner his ability to perform these adjustments);
- (f) to understand the causes of deviation of the compass and the possible effect of the change of latitude on such deviation;
- (g) to fix a ship's position on a chart or plan by horizontal angles, using a station pointer, or by vertical angles;
- (h) to have a knowledge of the Law of Storms; to know the seasons when hurricanes may be expected in Caribbean waters;
- (i) to know the use of radar, radio direction finders, gyro compasses and sonic depth recorders;
- (j) to show by written or oral answers his understanding of the various terms used in the foregoing problems in astronomical navigation; to answer in writing or orally questions on the requirements of the Canada Shipping Act, 1934, as amended, and regulations made thereunder, relating to the engagement and discharge of seamen, loadlines, insurance, and other subjects affecting the duties of a master.

(3) *In Seamanship*—In addition to the qualifications for mate, he must understand and give satisfactory answers on the following subjects:—

- (a) How to rig a sea anchor, and the means to adopt to keep a disabled vessel out of the trough of the sea;
- (b) the effect produced by emptying or filling ballast tanks and the effect on a ship's stability of a free surface of liquid;
- (c) how to get a cast of the deep sea lead in heavy weather;
- (d) the means to be taken to prevent his vessel when disabled from drifting towards a lee shore;
- (e) the means used to rescue the crew of a disabled vessel;
- (f) the use of oil on rough seas;
- (g) the preservation of crew or passengers in case of wreck;
- (h) how to lay out an anchor in case of stranding;
- (i) how to rig a jury rudder;
- (j) he will be required to answer any other questions appertaining to the duties of master which the Examiner may think necessary to ask.

(4) *In Signals*—See Paragraph 1 (4) and Appendix A.

3. MASTER OF A HOME-TRADE STEAMSHIP OF UNDER 150 TONS GROSS

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea.

Canada Shipping Act—continued**(2) In Navigation**

- (a) A candidate must be able to read and write legibly. He shall if necessary be tested by dictation;
- (b) he must be able to solve simple problems in arithmetic;
- (c) he must have a knowledge of the use of magnetic compasses and an understanding of the causes of deviation of the compass. He must be able to find the deviation of the compass on any heading by means of transit bearings;
- (d) he must be able to interpret from a chart the information it gives; to lay off suitable courses along a coast or in narrow waters; to find the depth of the water; to construct a line of soundings; to make landfalls in thick weather. He must know the Canadian system of buoyage;
- (e) A candidate will be required to find from a chart or plan the course or courses to steer and the distance on each course from one given position to another; to find the ship's position, together with the set and drift if any from cross bearings of two objects; to find the ship's position from two bearings of the same object, the course and distance run between the bearings being given, making due allowance for a given tide or current; to find the course to steer by compass to counteract the effect of leeway or a given tide or current, and to find the distance the ship will make good toward a given point in a given time; to find the course and speed to arrive at a given position at a certain time, the set and drift being known;
- (f) He must understand the use of Tide Tables, Sailing Directions and Notices to Mariners.

(3) In Seamanship

A candidate must have a thorough knowledge of the International Regulations for the Prevention of Collision at Sea and the distress signals. In addition to oral questions he will be required to write answers to questions on this subject.

He will also be required to answer written and oral questions on the following subjects:

Care and use of lifesaving equipment, including management of lifeboats; prevention of fire hazards; care and use of fire-fighting equipment; organization of crew and passengers to meet emergencies; mooring, berthing and manoeuvring; handling ship in bad weather; towing and being towed; abandoning ship; stranding; salvage; dangerous cargoes; entering and clearing ports; logbooks and other official documents.

He will also be required to answer any other questions relating to the duties of a master of small steamships which the Examiner may think necessary to ask.

(4) In Signals

A candidate must recognize and know the meaning of the one-flag signals of the International Code of Signals also storm signals and local signals. He must also be able to make and read signals by flashing lamp in Morse Code.

4. MATE OF A HOME-TRADE LICENSED FERRY STEAMSHIP—(Certificate not valid for any other class of steamship).

- (1) A candidate must be not less than twenty-one years of age, and must have served thirty-six months at sea.

Canada Shipping Act—continued

- (2) (a) He must be able to read and write legibly, to be tested by one quarter hour's dictation;
- (b) he must be able to name the different points of the compass;
- (c) he will be required to possess a thorough knowledge of the Rules of the Road both as regards steamships and sailing vessels, their regulation lights, fog and distress signals, and write answers to questions on the Rules of the Road which the Examiner will give him;
- (d) he will be required to answer any other questions appertaining to fire, boats, safety of passengers, and the duties of a Mate of a licensed ferry steamship which the Examiner may think necessary to ask.

5. MASTER OF A HOME-TRADE LICENSED FERRY STEAMSHIP—(Certificate not valid for any other class of steamship).

- (1) A candidate must be not less than twenty-three years of age, and must have served forty-eight months at sea, twelve months of which must have been as mate, while holding the requisite mate's certificate, of a licensed ferry steamship or a steamship of a superior class; or he must have served twelve months as master of a tugboat while holding a tugboat master's certificate.
- (2) In addition to the qualifications for mate:
 - (a) He must know the first four rules of arithmetic;
 - (b) he will be questioned as to his knowledge of how to restore the apparently drowned;
 - (c) he must know what action to take in the event of his vessel taking fire.
 - (d) he must know the principal lights, tides, currents and courses to steer in the vicinity in which he is stationed;
 - (e) he will be required to answer any other questions appertaining to the duties of a master of a licensed ferry steamship which the Examiner may think necessary to ask.

6. MASTER OF A HOME-TRADE TUG-BOAT

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea.
- (2) *In Navigation*—He must be able:
 - (a) to read and to write legibly, to be tested by one quarter hour's dictation;
 - (b) to know the first four rules of arithmetic;
 - (c) to write answers to steamship questions;
 - (d) to be able to take a bearing by compass; to find the course to steer and distance from one given position to another; to find the position of the ship by cross bearings; to find the ship's position from two bearings of the same object, making due allowance for a given current; also the distance of the ship from a given object at the time of taking the second bearing;
 - (e) to know the International Code of Signals and the meaning of the one-flag signals, also storm signals and local signals; he must also be able to make and read signals by flashing lamp in the Morse Code.

Canada Shipping Act—continued

- (3) *In Seamanship*—The candidate must possess a thorough knowledge of the Rules of the Road as regards steamships and sailing vessels, their regulation lights, fog and distress signals, and write answers to questions on the Rules of the Road which the Examiner will give him. He will be examined orally on the following subjects:—
- (a) man overboard; restoring the apparently drowned; death or accident on board; collision and damage; lifeboats; lifebelts; fire appliances and equipment; stranding; salvage; tides and currents; use of oil on heavy sea; handling ship in bad weather; towing rafts, logs, barges, boats or ships under any and all conditions;
 - (b) he will be required to answer any other questions appertaining to the duties of a master of a tug-boat which the Examiner may think necessary to ask.

INLAND WATERS

7. MATE OF AN INLAND WATERS STEAMSHIP.

- (1) A candidate must be not less than twenty-one years of age, and must have served thirty-six months at sea, twelve months of which must have been as wheelsman; or
 - (a) he must have served twelve months as mate of a steamship in the minor waters, which is required by law to carry a certificated mate, whilst holding a certificate as mate of a steamship in the Minor Waters.
- (2) *In Navigation*—A candidate will be required:
 - (a) to write a legible hand and spell correctly, to be tested by one quarter hours' dictation;
 - (b) to know the first four rules of arithmetic;
 - (c) to be able to take a bearing by compass, and to find on a chart or plan the course and distance from one given position to another; to find the ship's position by two bearings of one object, the course and distance run between the bearings being given, making allowance for a known current; also the ship's position from simultaneous bearings of two objects (deviation cards may be either ship's head by compass or ship's head magnetic);
 - (d) to understand the causes of variation and deviation; to be able to find the deviation by means of transit bearings using a chart or official publication at the discretion of the Examiner for the obtaining of a true or magnetic bearing; to be able to find the approximate deviation by means of the Pole Star and to know the amount of possible error involved in neglecting the displacement of the Pole Star out of the meridian; to understand the use of the pelorus for taking bearings;
 - (e) to know how to keep a ship's log book, with the entries to be made therein.
- (3) *In Seamanship*—A candidate must possess a thorough knowledge of the Rules of the Road (International and for the Great Lakes) as regards both sailing vessels and steamships, their regulation

Canada Shipping Act—continued

lights, fog and sound signals. He must write answers to questions on the Rules of the Road which the Examiner will give him. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes.)

- (a) he must understand the lead, log, knotting, splicing, rigging, and stowing cargo;
- (b) he must thoroughly understand the management and equipment of lifeboats and rafts;
- (c) he must understand the fittings for fire purposes, bulkhead sluices, and telegraphs;
- (d) he must understand the securing and lowering of lifeboats or rafts in heavy weather;
- (e) he must know the Canadian system of buoyage;
- (f) he will be required to answer in writing not less than ten questions in general seamanship, which may in the Great Lakes region have particular reference to practise in those waters;
- (g) he will be required to answer any other questions appertaining to the duties of mate which the Examiner may think necessary to ask.

8. MASTER OF AN INLAND WATERS STEAMSHIP.

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea, including:
 - (a) twelve months as mate whilst holding a mate's certificate; or
 - (b) twenty-four months as second mate or thirty-six months as third mate in charge of a watch in a foreign-going, home-trade or inland waters steamship other than a tug-boat, provided he has served in such capacity whilst in possession of a Certificate of Competency as mate of a steamship or cargo steamship in the Home-Trade, or in the Inland Waters, or a second mate's certificate for a Foreign-Going vessel.
- (2) *In Navigation*—A candidate, in addition to the qualifications for mate, will be required:
 - (a) to find on a chart or plan the course to steer by compass to counteract the effect of a given current, and to find the distance the ship will make good toward a given point in a stated time; to have a more thorough understanding of the use of charts than required of a mate, including the differences between Mercator charts and charts on the polyconic projection as used on the Great Lakes.
 - (b) to find the true azimuth of the sun by the Time Azimuth Tables, the error of the compass and also the deviation, the variation being given; the time given may be local Standard or Daylight Saving Time or Greenwich Time.
 - (c) to understand the use of radio direction finder and sonic depth recorder and other electronic aids to navigation as such are brought into general use.

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- (3) *In Seamanship*—The candidate, in addition to the qualifications for mate, must know:
- (a) the use of official light lists and sailing directions; (the Examiner may ask questions in local knowledge of the waters in which the candidate has been sailing, in order to estimate his intelligent interest in his work);
 - (b) how to lay out an anchor in case of stranding;
 - (c) how to rig a jury rudder;
 - (d) how to rig a sea anchor and how he would keep a disabled vessel out of the trough of the sea;
 - (e) the use and management of the mortar and rocket apparatus;
 - (f) the requirements of the Canada Shipping Act, 1934 as amended, and regulations made thereunder relating to the engagement and discharge of seamen, loadlines, insurance and other matters affecting the duties of an inland waters shipmaster. A candidate may be required to write answers to questions on these subjects;
 - (g) he will be required to answer any other questions appertaining to the duties of master which the Examiner may think necessary to ask.

9. MASTER OF AN INLAND WATERS STEAMSHIP OF UNDER 150 TONS GROSS

- (1) A candidate must be not less than twenty-three years of age, and must have served forty-eight months at sea.
- (2) *In Navigation*—A candidate will be required:
- (a) to write a legible hand and spell correctly, to be tested if necessary by one quarter hour's dictation;
 - (b) to know the first four rules of arithmetic;
 - (c) to be able to take a bearing by compass, and to find on a chart or plan the course and distance from one given position to another; to find the ship's position by two bearings of one object, the course and distance run between the bearings being given, also the distance of the ship from the object at the time of taking the second bearing, also the ship's position from simultaneous bearings of two objects (deviation cards may either be ship's head by compass or ship's head magnetic);
 - (d) to explain the markings, signs and abbreviations on chart or plan;
 - (e) to understand the causes of variation and deviation and the effect that different cargoes might have on the compass;
 - (f) to be familiar with the practice of finding compass deviation by means of ranges or points of land in line;
 - (g) to be able to distinguish the different characteristics of the lights, fog signals and radio beacon signals as listed in the publications issued annually by the Department of Transport;
 - (h) to know how to keep a ship's logbook and the entries to be made therein.
- (3) *In Seamanship*—A candidate must possess a thorough knowledge of the Rules of the Road (International and Great Lakes) as regards both sailing vessels and steamships, their regulation

Canada Shipping Act—continued

lights, fog and sound signals. He will be required to write answers to questions which the Examiner will give him on this subject. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes).

- (a) He must understand the lead; log; knotting and splicing; rigging; and stowage of cargo;
- (b) he must thoroughly understand the management and equipment of lifeboats and rafts, the management and use of the fire-fighting and other life-saving equipment on board passenger ships and cargo ships and the steps to be taken for the care of passengers and crew in case of emergency;
- (c) he must know how to rig a sea anchor in order to keep a disabled vessel out of the trough of the sea;
- (d) he must know how to lay out an anchor in case of stranding;
- (e) he must be able to describe the signals of distress;
- (f) he must understand the use and management of the mortar and rocket apparatus; and the operation of a rocket-throwing gun;
- (g) he must know the requirements for the engagement and discharge of a crew;
- (h) he will be required to answer any other questions appertaining to the duties of master which the Examiner may think necessary to ask.

10. MASTER OF AN INLAND WATERS TUG-BOAT

- (1) A candidate must be not less than twenty-three years of age, and must have served not less than forty-eight months at sea.
 - (a) He must be able to write a legible hand and spell simple language correctly, to be tested by one quarter hour's dictation;
 - (b) he must know the first four rules of arithmetic;
 - (c) he must be able to lay a course on a chart or plan, and determine the distance from any given point of departure, and be able to find the deviation from a deviation card and the compass course to steer;
 - (d) he must possess a thorough knowledge of the Rules of the Road (International and for the Great Lakes) as regards both sailing vessels and steamships, their regulation lights, fog, sound and distress signals, and write answers to questions on the Rules of the Road which the Examiner will give him. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes.)
 - (e) he must understand the lead, log, knotting and splicing;
 - (f) he must know the principal lights in the vicinity where he is to operate his vessel, and special aids to navigation;

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- (g) he must explain what to do in the event of his vessel taking fire;
- (h) he must be able to rig a sea anchor and state how he would keep a disabled vessel out of the trough of the sea;
- (i) he will be required to answer any other questions appertaining to the duties of a master of a tug-boat which the Examiner may think necessary to ask.

MINOR WATERS**11. MATE OF A MINOR WATERS STEAMSHIP**

- (1) A candidate must be not less than twenty-one years of age and must have served thirty-six months at sea, twelve months of which must have been as wheelsman, or seaman performing wheelsman's duties.
- (2) *In Navigation*—A candidate will be required:—
 - (a) to read and write a legible hand and spell simple language correctly, to be tested by one quarter hour's dictation;
 - (b) to understand the first four rules of arithmetic;
 - (c) to name the points of the compass;
 - (d) to understand the care and stowage of cargo.
- (3) *In Seamanship*
 - (a) A candidate will be questioned on the Rules of the Road (International and for the Great Lakes), sound and distress signals, and must answer in writing questions on these subjects. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes).
 - (b) A candidate will be required to answer any other questions the Examiner may think necessary to ask him appertaining to the duties of a mate of a minor waters steamship.

12. MASTER OF A MINOR WATERS STEAMSHIP

- (1) A candidate must be not less than twenty-three years of age, and must have served forty-eight months at sea, including twelve months as mate, twenty-four months as second mate or thirty-six months as third mate in charge of a watch while holding a mate's certificate; or he must have served twelve months as master of a tug-boat while holding a Master's Tug-boat Certificate.
- (2) *In Navigation*—A candidate, in addition to the qualifications for mate, will be required to understand the figures and abbreviations on a chart, to give the distance and to lay a course from one place to another: to find the deviation from a deviation card and apply same to find the course to steer.
- (3) *In Seamanship*—In addition to the qualifications for mate a candidate will be required:—
 - (a) to possess a thorough knowledge of the Rules of the Road (International and for the Great Lakes), both as regards

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steamships and sailing vessels; (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes);

- (b) to answer in writing ten questions on steamships and their lifesaving appliances;
- (c) to know how to act in case of stranding;
- (d) to know the fittings for fire purposes and how to act in case of fire;
- (e) to know the requirements for the engagement and discharge of a crew;
- (f) to answer questions respecting currents and aids to navigation which the Examiner may think proper to ask; and
- (g) to answer any other questions the Examiner may think necessary to ask concerning the duties of a master of a minor waters steamship.

13. MASTER OF A MINOR WATERS STEAMSHIP OF UNDER 150 TONS GROSS

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea.

(2) *In Navigation*

- (a) A candidate must be able to read, write and understand the first four rules of arithmetic;
- (b) he must have a satisfactory understanding of the use of the magnetic compass;
- (c) he will be required to show an understanding of the information provided by a chart;
- (d) he will be required to find from a chart the compass course or courses to steer and the distance on each course from one given position to another.

(3) *In Seamanship*

- (a) A candidate must have a thorough knowledge of the Rules of the Road, (both International and Great Lakes) and must answer written and oral questions on the subject. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes);
- (b) he will be examined as to his ability to handle vessels in rivers and on lakes and on such subjects as the care and use of life-saving and firefighting equipment; prevention of fire hazards; towing and being towed; stranding; handling of cargo and passengers;
- (c) he must know the requirements for the engagement and discharge of a crew;
- (d) he must be able to answer any other questions the Examiner may think necessary to ask concerning the duties of a master of a minor waters steamship of under 150 tons gross.

Canada Shipping Act—continued**14. MATE OF A MINOR WATERS LICENSED FERRY STEAMSHIP**

(Certificate not valid for any other class of steamship)

- (1) A candidate must be not less than twenty-one years of age, and must have served thirty-six months at sea.
- (2) (a) He must be able to read and write legibly, to be tested by one-quarter hours' dictation;
(b) he must understand the stowage and distribution of cargo;
(c) he will be required to answer questions on the Rules of the Road, International and for the Great Lakes. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes);
(d) he must have a thorough knowledge of all life-saving equipment found on a licensed ferry steamship;
(e) he will be required to answer any other questions appertaining to the duties of a mate of a ferry steamship which the Examiner may think necessary to ask.

15. MASTER OF A MINOR WATERS LICENSED FERRY STEAMSHIP

(Certificate not valid for any other class of steamship)

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months at sea, twelve months of which must have been as mate whilst holding a Mate's Certificate; or he must have served twelve months as master of a tug-boat while holding a Tug-boat Master's Certificate.
- (2) In addition to qualifications for mate:
 - (a) he must understand the first four rules of arithmetic;
 - (b) he must be able to name the different points of the compass;
 - (c) he must have a thorough knowledge of the waters, etc., in the vicinity in which he is likely to be employed;
 - (d) he will be questioned on the Rules of the Road (International and for the Great Lakes), sound and distress signals, and must answer in writing questions on these subjects. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes);
 - (e) he will be examined as to his resources for the preservation of the passengers and crew in the event of stranding or other casualty, and the steps to take if his vessel were disabled;
 - (f) he must also explain what he would do in the event of his vessel taking fire;
 - (g) he will be required to answer any other questions appertaining to the duties of a master of a ferry steamship which the Examiner may think necessary to ask.

Canada Shipping Act—continued

16. MASTER OF A MINOR WATERS TUG-BOAT

- (1) A candidate must be not less than twenty-three years of age and must have served forty-eight months in a qualifying capacity at sea.
- (2)
 - (a) he must understand the first four rules of arithmetic;
 - (b) he must be able to write a legible hand and spell simple language correctly, to be tested by one-quarter hour's dictation;
 - (c) he must be able to name the different points of the compass;
 - (d) he will be questioned on the Rules of the Road (International and for the Great Lakes), sound and distress signals, and must answer in writing questions on these subjects. (In examinations held in Western and Northwestern Canada the Examiner may use his discretion as to the knowledge of the Rules of the Road for the Great Lakes which he will require of a candidate, but care should be taken that the candidate is aware of the existence of special rules for the Great Lakes);
 - (e) he will be required to answer any other questions appertaining to the duties of a master of a tug-boat which the Examiner may think necessary to ask.

17. MASTER OF AN ALLIGATOR OR WARPING TUG-BOAT UNDER 40 TONS GROSS TONNAGE WITHIN SPECIFIED LIMITS, ON MINOR WATERS ONLY

- (1) A candidate must be not less than twenty-one years of age, must be recommended in writing by his prospective employer, and furnish satisfactory testimonials as to character and sobriety and as to experience and ability.
- (2) A candidate will be required:
 - (a) to pass the eyesight tests;
 - (b) to have sufficient knowledge of the Rules of the Road for the locality in which his boat is to work; and
 - (c) to satisfy the Examiner that he is competent to act as master of an alligator or warping tug-boat.

For the purpose of this paragraph any Steamship Inspector appointed under the provisions of part VII of the Canada Shipping Act shall be deemed to be an Examiner of Masters and Mates.

NOTE—Notwithstanding anything contained in this regulation it shall be competent for the Minister, when in his opinion conditions warrant or demand it, to require any alligator or warping tug-boat under 40 tons gross tonnage to have a master holding a certificate as master of a minor waters tug-boat.

18. CERTIFICATES OF SERVICE FOR STEAMSHIPS UNDER 150 TONS GROSS TONNAGE

- (1) As provided in the Canada Shipping Act, 1934, section 118, as amended June 30, 1948, every British subject who:
 - (a) served as master of a home-trade, inland waters or minor waters sailing ship of over ten tons, gross tonnage, fitted

Canada Shipping Act—continued

with mechanical means of propulsion other than steam engines, before the first day of January, one thousand nine hundred and forty-eight, for a full period of twelve months within the ten years immediately preceding the date of his application for a Certificate of Service;

(b) produces satisfactory evidence of his sobriety, experience, ability and general good conduct on board ship; and

(c) passes the prescribed examination;

shall be entitled, on payment of the prescribed fee, and according to the waters served in, to either a Home-Trade, Inland Waters or Minor Waters Certificate of Service as master of a steamship of over ten tons, gross tonnage, and not exceeding one hundred and fifty tons, gross tonnage, and not carrying passengers. Such certificate shall not be valid on tugs.

- (2) The prescribed examination for the above mentioned Certificate of Service shall comprise the sight tests and a thorough knowledge of the Rules of the Road. If the candidate's service has been on the St. Lawrence River and Gulf, he must also have a thorough knowledge of the "Regulations for the River St. Lawrence from Father Point to Victoria Bridge at Montreal" issued by the Department of Transport. In the case of a Home-Trade Certificate, the candidate must also know the one-flag signals of the International Code of Signals, also storm signals.

19. TEMPORARY CERTIFICATE AS MASTER OF A STEAMSHIP OF NOT MORE THAN 40 TONS GROSS OR CERTIFIED TO CARRY NOT MORE THAN 40 PASSENGERS, within specified limits in the home-trade, inland waters or minor waters, as provided in the Canada Shipping Act, 1934, section 122, as amended June 30, 1948. This certificate may be granted for a term not exceeding one year but may be suspended or cancelled for cause by the Minister; the certificate shall describe the ship or class of ship, and the specified limits.

- (1) A candidate should be at least twenty-one years of age, and should produce testimonials to show that he has had experience in the particular waters for which the certificate is required. References should also be produced testifying to the candidate's sobriety, ability and good conduct on board ship.

(2) *Oral Examination*

The candidate must:

- (a) pass the sight tests;
- (b) show a sufficient knowledge of the Rules of the Road to operate his vessel with safety in the waters specified, by day or night, and under all conditions;
- (c) know the principal lights and aids to navigation in the vicinity where he is to operate; also have a knowledge of directions and distances sufficient to safeguard the vessel under his control when visibility is low;
- (d) answer any questions which the Examiner may think necessary pertaining to the handling, in rough weather, of the vessel for which the certificate is required; also steps to be taken for the safety of passengers and crew in case of fire or other emergency;

Canada Shipping Act—continued

- (e) The candidate should in particular be aware of the dangers inherent in the use of gasoline for motive power or cooking purposes, and the necessity for proper ventilation and the avoidance of leaking gasoline pipe-lines, etc.

CHAPTER II

RULES FOR ESTIMATING SERVICE

(1) In these Regulations "Home-Trade Voyage" means a voyage not being an inland or minor waters voyage between places within the area following, to wit: Canada, the United States of America, the Territory of Alaska not west of Cape Spencer, Newfoundland, Labrador, St. Pierre and Miquelon, the West Indies, Mexico, Central America and the northeast coast of South America, in the course of which a ship does not go south of the sixth parallel of north latitude or through Behring Strait.

(2) "Inland Waters of Canada" means all the rivers, lakes and other navigable fresh waters within Canada, and includes the river St. Lawrence as far seaward as a straight line drawn from Cap des Rosiers through West Point Anticosti Island extending to the north shore.

(3) "Inland Voyage" means a voyage not being a minor waters voyage, on the inland waters of Canada together with such part of any lake or river forming part of any such water as lies within the United States of America or on Lake Michigan.

(4) "Minor Waters of Canada" means all inland waters of Canada other than Lakes Ontario, Erie, Huron (including Georgian Bay), Superior and Winnipeg, and the river St. Lawrence east of a line drawn from Father Point to Point Orient and includes all bays, inlets and harbours of or on the said lakes and said Georgian Bay and such sheltered waters on the sea coasts of Canada as the Minister may specify.

(5) "Minor waters voyage" means a voyage within the following limits, to wit—the minor waters of Canada together with such part of any lake or river forming part of any such water as lies within the United States of America.

(6) "Great Lakes steamship" means a steamship whose Certificate of Inspection permits her lawfully to operate on the Great Lakes and which actually proceeds outside the limits of minor waters.

(7) "Home-trade steamship" means a steamship whose Certificate of Inspection permits her lawfully to operate on a home-trade voyage and which actually proceeds outside the limits of inland and minor waters.

(8) Service exclusively in the minor waters will not be accepted as qualifying for examination for Inland or Home-Trade Certificates except under conditions specified in these regulations.

(9) Service in the inland waters will be accepted as qualifying for examination for Minor Waters Certificates.

(10) Service in the inland waters will not be accepted as qualifying for examination for Home-Trade Certificates except under conditions specified in these regulations.

(11) Service on vessels engaged in the home-trade will be accepted as qualifying for examination for Inland or Minor Waters Certificates.

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(12) Service on foreign-going vessels will be accepted as qualifying for examination for Home-Trade, Inland Waters or Minor Waters Certificates.

(13) Service on a Great Lakes steamship while employed between a port or ports on the Great Lakes and a port or ports on the minor waters will count in full as qualifying service for examination for an Inland or Minor Waters Certificate.

(14) Service on a home-trade steamship, while employed between a port or ports on the sea-coast and a port or ports on the inland waters or minor waters, will count in full as home-trade service for the purpose of examination.

(15) Service performed on or before June 30, 1948, in home-trade voyages or inland voyages respectively as defined prior to that date in the Canada Shipping Act, 1934, will, for examination purposes, be accepted as home-trade or inland waters service as the case may be. Service performed after June 30, 1948, will be accepted as home-trade service or inland waters service respectively according to the definitions of home-trade and inland voyages as amended on that date.

(16) Service on scows, dredges, lightships, barges or other vessels having neither masts, sails nor rigging, and not being self propelled steamships, will not be accepted as qualifying for purposes of examination.

(17) Service in cargo vessels of not exceeding 10 tons gross tonnage, in passenger vessels of not exceeding 5 tons gross tonnage and in pleasure yachts of not exceeding 10 tons gross tonnage will not be accepted as qualifying for examination for Certificates of Competency.

(18) Service on vessels employed solely in fishing may be accepted as qualifying for examination purposes, but no length of such service shall count for more than twelve months; except in the case of deep sea fishing vessels of over twenty tons gross tonnage whose fishing grounds are over one hundred miles from their home port, where such service will be accepted as service afloat.

(19) Service in vessels employed only within sheltered water limits on the sea-coast will not be accepted as service to qualify for examination for a Mate's or Master's Certificate of Competency in the Home-Trade or on the Inland Waters. Service in Government Department Steamships of small tonnage such as Preventive Patrol boats, which operate only in partially smooth water, cannot be accepted in full as qualifying service. Such service will be sympathetically considered but additional service providing sea experience will be required, and in the case of a master watchkeeping service and officer's responsibility.

As a general rule in dealing with service performed in Canadian Government vessels, three quarters of the time served therein on articles of agreement will be accepted, but only half time will be accepted for laid-up periods of more than ten consecutive days during a vessel's season of navigation. Consideration may be given to the acceptance in full of service in ships on exceptional voyages.

(20) Qualifying service for examination must be as master, mate, apprentice, deckhand, ordinary seaman, sailor, able seaman, boatswain,

Canada Shipping Act—continued

wheelsman or quartermaster. Service in any other capacity will not be accepted as qualifying service for examination unless the Examiner is satisfied that while acting in such capacity the candidate performed the regular duties of a deck seaman.

(21) When these regulations require service as wheelsman (or seaman performing wheelsman's duties) and a candidate cannot qualify by reason of having been promoted for good service from wheelsman (or seaman performing wheelsman's duties) to boatswain or junior officer, the Examiner may recommend the acceptance of the service as boatswain or junior officer in place of a portion, not exceeding six months, of the required service as wheelsman. Such recommendation will be considered only if accompanied by a testimonial from the Master of the vessel to the effect that the candidate is a competent wheelsman.

Likewise the Department may, at its discretion, accept the total service which would qualify a candidate for examination for a certificate as master or mate in any grade as qualifying for examination for the corresponding rank and class of certificate in an inferior grade.

(22) Officer's service, to be recognized as such, must have been performed while the candidate held the requisite Certificate of Competency; except that in those cases where a candidate has acted in such capacity with the authorization of the Department, although not holding the proper certificate, such service may at the discretion of the Department be accepted as officer's service. Each case of this kind must be decided on its merits, and the facts must be fully documented.

(23) In every case where a candidate for a Master's Certificate of Competency claims service as second mate or third mate he must produce a satisfactory testimonial from the master or owner of the vessel on which he served, stating that during the whole time he had full charge of a watch for eight hours of every twenty-four hours under way, except when the master himself was on the bridge.

(24) Actual time served as pilot, performed by a licensed pilot on board ship whilst holding a Mate's Certificate will be accepted as equivalent to mate's service with a Mate's Certificate to qualify for a certificate as master in the minor waters only.

(25) Service in Naval vessels between September 3, 1939 and December 31, 1946, may be considered as follows:—

- (1) An applicant for a certificate under these Regulations who was an officer of the Executive Branch, or a rating of the Seamen Branch of the Royal Canadian Naval Reserve, may count as qualifying sea service the full time served in any of His Majesty's ships of the following classes: cruisers, armed merchant cruisers, destroyers, corvettes, minesweepers, armed yachts, coastal patrol vessels, examination vessels or other vessels of the same class.

- (a) The applicant for a Certificate where watchkeeping service is required must be in possession of a Watchkeeping Certificate signed either by the Commanding Officer, if he served on a destroyer or other of His Majesty's ships having a complement of 150 men or over, or by the Naval Officer in charge, or Command Officer of Flotilla or parent ship, in the case of small craft.

Canada Shipping Act—continued

- (b) The applicant holding a Watchkeeping Certificate shall, before being admitted to the examination, show the necessary officer's service while holding the Certificate of Competency required by these Regulations.
 - (c) The Watchkeeping Certificate shall be authenticated by Naval Service Headquarters, Ottawa. In addition to the Watchkeeping Certificate, the applicant shall furnish on the application form a record of qualifying time served in the Naval Service which also shall be authenticated by Naval Service Headquarters, Ottawa.
- (2) The full time served at sea by officers of the Executive Branch and ratings of the Seamen Branch of the Royal Canadian Navy and of the Royal Canadian Naval Volunteer Reserve may be accepted as qualifying sea service for examination for a Certificate of Competency as Second Mate Foreign-Going, Mate Home-Trade, Mate Inland Waters, Mate Minor Waters, Mate Licensed Ferry Steamship, Master Tug-boat and Master of a Steamship of under 150 tons gross, up to a maximum of one year less than that required for the certificate applied for, provided that such service was performed in a qualifying capacity and was not performed in gate vessels, depot ships, harbour craft or vessels of a similar nature. If an applicant who was a member of the Royal Canadian Navy or of the Royal Canadian Naval Volunteer Reserve holds a Certificate of Competency, his officer's service while holding such Certificate may count in the same manner and to the same extent as officers service in the Royal Canadian Naval Reserve. Otherwise, the applicant shall comply with these Regulations.
- (26) Service in vessels of the Royal Canadian Air Force between September 3, 1939, and December 31, 1946, may be considered as follows:—
- (1) Applicants for Home-Trade, Inland Waters or Minor Waters Certificates of Competency as master of steamships, steamships under 150 tons gross, licensed ferry steamships or of tug-boats may count qualifying sea service on any of His Majesty's Canadian ships of the following classes, to the extent and in the manner as hereinafter set out:
 - (a) Full time on supply vessels and high speed rescue vessels, or—
 - (b) Three quarter time on range boats, types 1, and 2 of not less than 40 ft. in length, or—
 - (c) Half time on range boats type 3, aircraft crash boats and general utility boats of not less than 30 ft. in length.

Note: Time served on vessels of the Royal Canadian Air Force other than those of the abovementioned classes shall not count for examination purposes.

 - (d) If a Watchkeeping Certificate is required under the Regulations, the applicant must be in possession of such a certificate signed by the Commanding Officer of the vessel in which the applicant served or by the Officer in charge of the Air Base to which the vessel was attached.
 - (e) The applicant holding a Watchkeeping Certificate when required, shall show twelve months' service while holding a Certificate of Competency as mate home-trade, inland or minor waters, as the case may be, before being examined.

Canada Shipping Act—continued

(f) The Watchkeeping Certificate shall be authenticated by Royal Canadian Air Force Headquarters, Ottawa. The applicant shall furnish on the application form a record of qualifying service in Royal Canadian Air Force vessels, which shall be authenticated by Royal Canadian Air Force Headquarters, Ottawa.

(2) An applicant for a Home-Trade, Inland Waters, or Minor Waters Certificate as mate of a steamship or licensed ferry steamship or master of a steamship of under 150 tons gross tonnage or of a tug-boat must have served the qualifying time required by these Regulations, and the record of qualifying time served in Royal Canadian Air Force vessels shall be authenticated by Royal Canadian Air Force Headquarters, Ottawa. In all other respects, the applicant shall comply with these Regulations.

(27) Service between September 3, 1939, and December 31, 1946, in vessels of Water Transport Sections of the Royal Canadian Army Service Corps may be accepted for examination for Masters' and Mates' Certificates provided such service complies with these Regulations. Applicants shall produce credentials certified by the Commanding Officer.

(28) Applicants for examination who have been prisoners of war will be entitled to remission, not exceeding six months, of the required sea service, for the period of captivity by the enemy. Such applicants shall submit their credentials to the Department of Transport for approval.

(29) An applicant for examination who can produce satisfactory evidence that he has been prevented by the exigencies of war from taking the examination for a certificate of higher grade as required by these Regulations at the earliest date at which he was qualified to do so, may count any qualifying watchkeeping service which he has performed after that date as Officers' service for a Certificate of Competency as master or mate.

(30) Actual sea service in ships of the Royal Canadian Navy performed after December 31, 1946, may be accepted as qualifying service for examination for a Certificate of Competency as second mate foreign-going; also in the Home-Trade, Inland Waters and Minor Waters for examination for mate of a steamship or licensed ferry steamship, master of a steamship under 150 tons gross or master of a tug-boat, up to a maximum of one year provided that such service was performed in a qualifying capacity performing seamen's duties. Service of such ratings as coders, telegraphists, photographers, postal men, patrolmen, sail makers, radar plotters and aircraft handlers will not be accepted as qualifying service.

(31) Actual sea service performed in a qualifying capacity after December 31, 1946, in vessels of the Royal Canadian Army Service Corps may be accepted for examination for the Masters' and Mates' Certificates mentioned in Paragraph 30, provided such service complies with these Regulations, but no amount of such service shall count as more than one year. Applicants shall produce credentials certified by the Commanding Officer.

(32) Actual sea service performed in a qualifying capacity after December 31, 1946, in vessels of the Royal Canadian Air Force may be accepted for examination for the Masters' and Mates' Certificates mentioned in Paragraph 30, in the proportions as set out in Paragraph 26 of these Regulations, but no amount of such service shall count as more than one year.

Canada Shipping Act—continued

(33) Testimonials of service in foreign vessels must be authenticated and proved to the satisfaction of the Minister of Transport.

(34) The Minister of Transport may provide for the acceptance, as part of the qualifying service required by these Regulations, of a proportion of time spent at an approved nautical school where the qualifications of the teaching staff, the equipment and the course of instruction meet with Departmental approval. This allowance in service will not exceed six months and will be made only in the case of an examination for a Home-Trade, Inland Waters, or Minor Waters Certificate of Competency as mate of a steamship or ferry steamship, master of a steamship under 150 tons gross, or master of a tug-boat.

(35) Consideration may be given to the recognition of service performed under unusual circumstances not covered in these Regulations provided the Examiner and the Director of Marine Services are satisfied that such service complies in a practical sense with the requirements as laid down for examination for the certificate desired.

CHAPTER III

CONDUCT OF EXAMINATION

(1) Candidates are required to appear at the examination room punctually at the time appointed.

(2) Candidates are prohibited from bringing into the examination room books or papers of any kind whatever unless on instruction by the Examiner. The slightest infringement of this regulation will subject the offender to all the consequences of a failure.

(3) In the event of any candidate being detected in defacing, blotting, writing in or otherwise injuring any book or books provided by the Examiner, the paper of such candidate will be detained until the book or books defaced be replaced by him. He will not, however, be at liberty to remove the damaged book, which will still remain the property of the Examiner, or the Department as the case may be.

(4) In the event of any candidate being discovered copying from another, or affording any assistance, or giving or receiving any information or communicating in any way with another during the time of examination he will subject himself to a failure and its consequences.

(5) Candidates will not be allowed to work out their problems in pencil or on a slate or waste paper. Small corrections should be worked in the margin of the answer paper.

(6) No candidate will be permitted to leave the room until he has given up the paper upon which he is engaged.

(7) Candidates will be allowed to work out the various problems by the methods and tables they have been accustomed to use.

(8) In examinations for certificates as mate and master of a steamship in the home-trade the time allowed to answer the problems in navigation and chartwork shall be as shown on the examination paper in each case. In examinations for certificates as mate and master of a steamship in the inland waters the time allowed for those portions of the examinations involving calculations shall not exceed six hours for mate and seven hours for master unless the Examiner sees fit to lengthen the time in any particular case.

Canada Shipping Act—continued

(9) The degree of accuracy required in navigational problems shall be that ordinarily required for safe navigation, provided the work is correct in principle. For masters a degree of precision will be required, in work and results, beyond that demanded for mates.

(10) In every case where problems are required to be worked out, the examination for master is to commence with the problems for mate.

(11) Any candidate violating any of the regulations, or being guilty of insolence to the Examiner, or of disorderly or improper conduct in or about the examination room, will render himself liable to the postponement of his examination or, if he has passed, to the detention of his certificate for such period as the Deputy Minister of Transport may direct.

(12) A candidate who passed his examination for mate or master for fore-and-aft or square-rigged sailing vessels in the coasting trade prior to February 1, 1934, may have his certificate endorsed for a steamship in the home-trade, without performing any further service, if he is able to pass the prescribed form and colour vision tests.

CHAPTER IV

FEES

Table of Fees: Applicants for examination shall pay to the Examiner, previous to the examination, the following fees:—

For a Certificate of Competency as Master (first examination) ..	\$ 15.00
For a Certificate of Competency as Mate (first examination) ..	6.00
For a Certificate of Service as Master under section 118, C.S.A. 1934 as amended (first examination)	5.00
For a Certificate for an Alligator or Warping Tug-boat (first examination)	5.00
For a second examination for any of the above Certificates ...	Nil
For a third and any subsequent examinations for any of the above Certificates, the fee as specified respectively in this table for a first examination.	
For a certified copy of a Certificate	1.00
For the sight test when taken separately	1.00
For the examination in signalling when taken separately	1.00
For Temporary Master's Certificate under section 122, C.S.A. 1934 as amended	5.00

APPENDIX A

EXAMINATION IN SIGNALLING

Examiners are recommended to frame the examination in the International Code of Signals upon the instructions and illustrations given in Volume I. The information there given will be found sufficient to indicate all the characteristics of the Code. By the form of the hoist an observer can at sight understand the nature of any signal he sees flying; the examination should, therefore, tend to elicit a clear knowledge of all the distinctive features of the Code.

With this object in view the candidate must know the flags of the International Code, the distinguishing forms of the respective hoists; he should be able to tell what the signal consists of when preceded by P, X,

Canada Shipping Act—continued

or T; the nature of a three and four flag signal; how to use the substitute flags. He should know how to find the name of a merchant vessel and tell her nationality. The candidate should: (a) Be able to read the signal at sight as far as to name the flags composing the hoist; (b) Know the use of the answering pennant singly, or when used in a numerical signal; (c) Know the special pilot and quarantine signals; (d) How to code and decode a signal; (e) Have a knowledge of the ship and aircraft distress signals and understand the penalties which may be incurred by their improper use.

Candidates shall also be required to send and receive signals in British Semaphore up to eight words per minute, and in Morse Code by flash lamp up to six words per minute. The Semaphore Test shall consist of a plain language message; the Morse flashing test shall consist of a coded message and a plain language message. Candidates shall also be examined in the procedure for semaphore and Morse signalling laid down in the signalling instructions contained in Volume I of the International Code of Signals. Candidates for a Master's Certificate of Competency should be aware of the contents of Volume II of this code.

APPENDIX B**SIGHT TESTS****DETAILS AS TO THE CONDUCT OF THE TESTS**

The object of these tests is to ensure that the candidate's eyesight is sufficiently good to enable him to pick up and identify correctly the lights of distant ships at sea. Experience has shown that for this purpose he must be able to reach certain minimum standards both of form and colour vision.

The tests employed are two, a letter test and a lantern test, details of which are given below. The letter test is a test of form vision only, and the lantern test is a test of form and colour vision combined.

The tests must be conducted under the strict personal supervision of the Examiner. A careful record must be kept of all mistakes made by the candidate both in the letter test and in the lantern test.

Each Examiner must keep a record of all candidates passed by him for reference when required.

During the examination in the sight tests candidates must not be allowed to use spectacles or glasses of any kind, or any other artificial aid to vision. They will, however, have the option of using either eye separately or both eyes together.

I. LETTER TEST

1. *Letter Test to be Taken First*—The first test which the candidate is required to undergo is the letter test.

2. *Apparatus Used*—The letter test to be used for all candidates is that conducted on Snellen's principle by means of sheets of letters.

3. *Standard of Vision Required*—With the exceptions indicated below (see paragraph 6), every candidate will be required to read correctly nine of the twelve letters in the sixth line and eight of the fifteen letters in the seventh line of a test sheet placed in a good light at a distance of sixteen feet from the eye.

Canada Shipping Act—continued

4. *Method of Testing*—The test sheets should be hung on the wall, in a good light, but not in direct sunlight, at a height of five or six feet from the ground. The candidate should be placed at a distance of exactly sixteen feet from the sheets and exactly opposite them. This distance should be carefully measured, and should never in any circumstances be varied.

Where ordinary daylight is not considered suitable, artificial light may be used in a manner prescribed by the Department of Transport.

One of the sheets should be exposed and the candidate should be asked to read the letters on each sheet, beginning at the top and going downwards. Any mistakes which he makes should be carefully noted. If then it is found that he has read correctly at least nine letters in the sixth line and eight letters in the seventh line of a sheet, the candidate may be considered to have normal vision, and should be marked "passed".

5. *Passing or Failure*—If at the conclusion of the test the candidate is found to reach the required standard, he may be considered to have passed, and the Examiner should proceed with the lantern test, unless the candidate holds a Certificate of Competency. If the candidate fails to reach the standard required, he should be tested with at least four sheets, and the Examiner should record on Form 3 the number of mistakes made in each line of each sheet, and explain to the candidate that he may present himself for re-examination in not less than three months' time.

6. *Lower Standard Required in Certain Cases*—Candidates of fifty years of age or over may be regarded as passing the letter test if they can read correctly with both eyes at least five of the eight letters in the fifth line of a test sheet.

II. LANTERN TEST

1. *Apparatus*—A special lantern and a mirror have been provided for this test. The lantern should be placed directly in front of the mirror, so that the front part of the lantern is exactly ten feet from the mirror. Care should be taken that this lantern is properly placed, that is to say, the light reflected in the mirror must show clearly when viewed from the position of the candidate on the left of the lantern. The Examiner should always satisfy himself that these conditions are fulfilled before commencing the examination.

2. *Darkness Adaption*—It is essential that a candidate should be kept in a room which is either completely or partially darkened for at least a quarter of an hour before he is required to undergo this test.

Before the examination commences the Examiner must satisfy himself that the room in which it is conducted is so darkened as to exclude all daylight.

3. *Method of Testing*—The lantern supplied for the examination is so constructed as to allow one large or two small lights to be visible, and is fitted with twelve glasses of three colours—red, white and green. At the commencement of the examination the Examiner should show to the candidate a series of lights through the large aperture, and should require him to name the colours as they appear to him. Care should be taken in showing the white light to emphasize the fact that this light is not a pure white. If a candidate makes a mistake by calling this light "red" a proper red light should be shown immediately after and the candidate's attention directed to the difference between the two.

After a series of lights through the large aperture has been shown, the Examiner should make a complete circuit with the two small apertures,

Canada Shipping Act—continued

requiring the candidate to name the colours of each set of two lights from left to right. To prevent any possibility of the order in which the lights are arranged from being learnt, the Examiner should at least twice in each circuit go back a varying number of colours.

A record of any mistakes made with either the large aperture or the two smaller apertures should be kept on Form 3.

4. *Passing or Failure*—If a candidate with either the large aperture or the two smaller apertures of the lantern mistakes red for green, or green for red, he should be considered to have “failed” in the lantern test.

5. If the only mistake made by the candidate with the lantern is to call the white light “red”, and if after his attention has been specially directed to the difference between the two he makes no further mistake of this nature, he should be considered to have passed the lantern test.

If a candidate makes any other mistake with the lantern, i.e., if he calls white “red” repeatedly, or red “white” at all, or confuses green and white, his case should be submitted to the Supervising Examiner of Masters and Mates, and he should be told that the decision as to whether he is passed or failed, or must undergo a further examination will be communicated to him in due course. Pending the receipt of the Supervising Examiner’s instructions, such candidate should only be allowed to proceed with the remainder of the examination on the express understanding that the latter examination will be cancelled in the event of failure in the sight tests.

6. If on the report of the local Examiner the Supervising Examiner decides that the nature of the mistakes made shows conclusively that a candidate’s sight is so defective as to render him unfit to hold a certificate, the candidate shall be considered to have failed.

In cases where, upon the report of a local Examiner, a candidate is failed by the Supervising Examiner as well as in the case covered by paragraph 5, the Minister may allow a candidate who is dissatisfied with the decision a special examination.

7. The result of every test must be reported to the Deputy Minister or the Director of Marine Services, Department of Transport, Ottawa.

Every report relating to such examination must be signed by the Examiner who conducted the examination.

8. An approved method may be substituted for the lantern test at places where a lantern is not available; but candidates who have passed such a substitute test may be required to pass the lantern test at any subsequent examination for a Certificate of Competency or Service.

34. Load Line Rules for Ships Making Voyages on Lakes and Rivers

P.C. 62

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of January, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of the Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

Canada Shipping Act—continued

1. The Load Line Rules for Ships making Voyages on Lakes or Rivers, established by Order in Council P.C. 1903 of 6th August 1937, as amended, are hereby revoked; and

2. The attached "Load Line Rules for Ships making Voyages on Lakes or Rivers" are hereby made and established in substitution for the Rules hereby revoked.

His Excellency in Council is pleased further to order that the following ships be exempted, and they are hereby exempted, from the provisions of section 423A of the Canada Shipping Act, viz:

- (1) Ships employed in making minor-waters voyages, Class II, as defined in the Regulations respecting the Classification of Home-Trade, Inland and Minor-Waters Voyages, established by Order in Council P.C. 2283 of 9th September 1936;
- (2) Ships employed in making voyages on any lakes the open waters of which do not exceed twenty-five miles in length or five miles in breadth.

N. A. ROBERTSON,
Clerk of the Privy Council.

PART I

APPLICATION

1. These Rules shall apply to ships of 150 tons, gross tonnage, and upwards, which carry cargo or passengers on voyages on any lakes or rivers.

2. In these Rules, unless the context otherwise requires:—

"Act" means the Canada Shipping Act, 1934;

"amidships" means the middle of the length of the summer load water-line as defined in rule 39;

"Assigning Authority" means the Chairman of the Board of Steamship Inspection, Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the British Committee of the Bureau Veritas, or the American Bureau of Shipping.

"conditions of assignment" means the conditions of assignment set out in Part V of these Rules;

"flush deck ship" means a ship which has no superstructure on the freeboard deck;

"freeboard" means the distance measured vertically downwards at the side of the ship amidships from the upper edge of the deck line to the upper edge of the load line mark;

"freeboard deck" means the uppermost complete deck having permanent means of closing all openings in weather portions of the deck in accordance with rules 15 to 22, and, in flush deck ships and ships with detached superstructures, means the upper deck. In ships having discontinuous freeboard decks within superstructures which are not intact, or which are not fitted with Class 1 closing appliances as defined in rule 50, the lowest line of the deck below the superstructure deck shall be deemed to be the freeboard deck;

"sailing ship" includes all ships provided with sufficient sail area for navigation under sails alone, whether or not fitted with mechanical means of propulsion;

Canada Shipping Act—continued

“steamship” includes all ships having sufficient means for mechanical propulsion, except where provided with sufficient sail area for navigation under sails alone, and, for the purposes of these Rules, a lighter, barge or other ship without independent means of propulsion, when towed, is deemed to be a steamship;

“superstructure” means a decked structure on the freeboard deck extending from side to side of the ship, and includes a “raised quarter deck”, and “superstructure deck” means the deck forming the top of a superstructure;

“surveyor” means a Steamship Inspector, or, where the Assigning Authority is one other than the Chairman, a qualified surveyor appointed by such other Assigning Authority;

“tanker” includes all steamships specially constructed for the carriage of liquid cargoes in bulk;

“tanker freeboard” means a freeboard assigned under Part VII of these Rules.

PART II**SURVEYS**

3. Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the British Committee of the Bureau Veritas, and the American Bureau of Shipping, are hereby authorized to survey and mark ships under the provisions of these Rules, and to issue load line certificates.

4. (1) Subject to the provisions of rule 7 every application for the issue or renewal of a load line certificate shall be made by or on behalf of the owner of the ship to an Assigning Authority.

(2) Every application for the issue or renewal of a load line certificate in respect of tanker freeboards shall be accompanied by such plans as the Assigning Authority may require, showing the fittings and arrangements provided or to be provided for the purpose of complying with Part VII of these Rules.

(3) On every such application there shall be paid by the owner the fee prescribed in the first schedule to these Rules.

5. (1) The Assigning Authority shall upon receipt of the application and of the prescribed fee cause the ship to be surveyed as hereinafter provided by a surveyor.

(2) The surveyor shall survey the ship with a view to satisfying himself—

(a) that the material and workmanship of all parts of the hull of the ship are in all respects satisfactory and efficient and that the hull is in good condition internally and externally;

(b) that the ship (i) if the keel was laid after the 30th day of June, 1936, complies with the conditions of assignment to the extent thereby required in the case of that ship; (ii) if the keel was laid before the 1st day of July, 1936, complies with the conditions of assignment in principle and also in detail so far as is reasonable and practicable having regard to the efficiency of the protection of openings, the guard-rails, the freeing ports and the means of access to the crew's quarters provided by the arrangements, fittings and appliances existing on the ship at the time of survey; and

Canada Shipping Act—continued

- (c) in the case of an application for the issue or renewal of a certificate in respect of tanker freeboards, that the ship also complies with the provisions of Part VII of these Rules to the extent thereby required in the case of that ship.

(3) On the completion of the survey the surveyor shall forward to the Assigning Authority a report stating the result of the survey and containing such particulars of the ship as are required by the Assigning Authority to permit the assignment of the appropriate freeboards to the ship.

(4) On receipt of the surveyor's report the Assigning Authority, if satisfied that the ship complies with the appropriate provisions of these Rules to the extent thereby required in the case of that ship, shall assign freeboards to the ship and shall furnish the owners with particulars as to the nature of the load lines and of the position in which the deck line and the load lines are to be marked on the ship.

(5) The position of each load line shall be such that the distance measured vertically from the upper edge of the deck line to the upper edge of the load line is equal to the freeboard assigned to the ship which is appropriate to that load line.

6. (1) Every application for the annual survey of a ship under the provisions of subsection (4) of section 430 of the Act, for the purpose of seeing whether the load line certificate issued to that ship should remain in force, shall be made by or on behalf of the owner to the Assigning Authority by whom the certificate was issued.

(2) There shall be paid in respect of such survey the fee prescribed in the first schedule to these Rules.

(3) The Assigning Authority shall, upon receipt of the application and of the prescribed fee, cause the ship to be surveyed by a surveyor. The surveyor shall survey the ship with a view to satisfying himself—

- (i) that the fittings and appliances for the protection of openings, the guard-rails, the freeing ports and the means of access to the crew's quarters have been maintained on the ship in as effective a condition as they were in when the certificate was issued; and
- (ii) that no material alterations have taken place in the hull or superstructures of the ship which affect the positions of the load lines.

(4) (a) Upon the completion of the survey to the satisfaction of the surveyor, he shall forward a report thereon to the Assigning Authority and endorse on the certificate a statement that the survey of the ship has been so completed.

A copy of such report shall be forwarded to the Chairman.

(b) Where a ship has had load lines assigned the Assigning Authority shall report to the Minister every case of neglect on the part of the owner to have such ship submitted for annual survey.

7. In the case where the Assigning Authority is the Chairman—

- (a) application for assignment of load lines in respect of a ship or for the renewal of a load line certificate shall be made in duplicate in such form as the Board may require and shall be addressed to the office of the Steamship Inspector in the district in which the ship will be surveyed, or, where the ship is not to be surveyed in Canada, to the Chairman;

Canada Shipping Act—continued

- (b) where a ship, in respect of which application is made for the assignment of load lines, is one classed in a recognized classification society, the certificate of class, or a certified copy thereof, shall be attached to the application;
- (c) where a ship is not one classed to the highest standard of a recognized classification society, the application for the assignment of load lines shall be accompanied by such plans as the Board may require.

PART III**LOAD LINE MARKS**

8. On receiving from the Assigning Authority the particulars as to the deck line and load lines as provided in paragraph (4) of rule 5, the owner shall cause to be marked on each side of the ship, to the satisfaction of the surveyor, the appropriate marks in accordance with this Part of these Rules.

9. The diamond, lines and letters described in rule 10, shall be marked in such manner as, in the surveyor's opinion, will make them plainly visible. They shall be painted in white or yellow on a dark ground, or in black on a light ground, and shall also be carefully cut in or centre-punched on the sides of iron and steel ships, and on wood ships shall be cut into the planking for at least one-eighth of an inch.

10. A steamship shall be marked on each side with a deck line and load lines as follows:—

- (a) A deck line which shall be a horizontal line twelve inches in length and one inch in breadth marked amidships with its upper edge passing through the point where the continuation outwards of the upper surface of the freeboard deck intersects the outer surface of the shell. (See Figure 1.) Where the deck is partly sheathed amidships, the upper edge of the deck line shall pass through the point where the continuation outwards of the upper surface of the actual sheathing at amidships intersects the outer surface of the shell.
- (b) A load line diamond which shall be a square fifteen inches on each diagonal with one diagonal vertical and which shall be intersected by a horizontal line twenty-one inches in length and one inch in breadth, the upper edge of which shall coincide with the horizontal diagonal of the diamond. The diamond shall be marked amidships, below the deck line.
- (c) Horizontal lines, nine inches in length and one inch in breadth which extend forward from, and are at right angles to, a vertical line marked twenty-one inches forward of the centre of the diamond (see Figure 1) and which indicate the maximum depth to which the ship may be loaded in different seasons. These lines are as follows:—

The summer load line, indicated by the upper edge of the line which passes through the centre of the diamond and also by the upper edge of a line marked "S".

The intermediate load line, indicated by the upper edge of a line marked "I".

The winter load line, indicated by the upper edge of a line marked "W".

Canada Shipping Act—continued

11. A sailing ship shall be marked on each side with a deck line, a load line diamond, a summer load line, and a winter load line as provided in rule 10.

12. For the purpose of indicating the name of the Assigning Authority by whom the freeboards have been assigned, letters measuring about $4\frac{1}{2}$ inches by 3 inches may be marked alongside the diamond and above the line through the centre of the diamond.

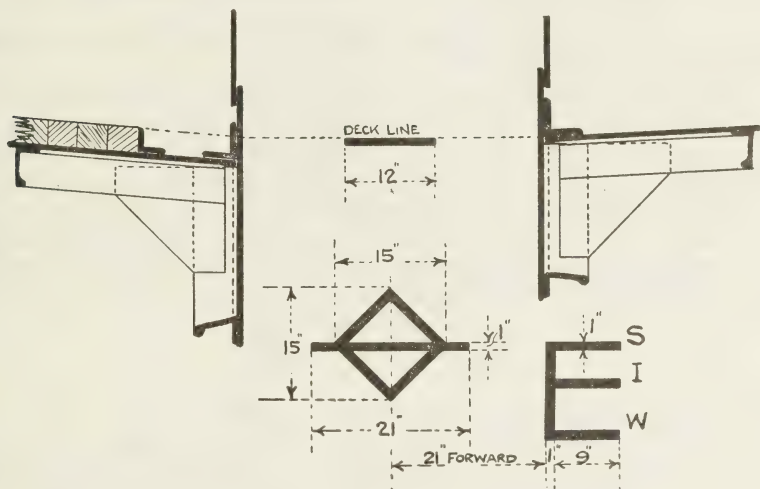


Figure 1.

PART IV

CERTIFICATES

13. Every load line certificate in respect of freeboards assigned to a ship shall be issued by the Assigning Authority by whom those freeboards were assigned and shall be in the form set out in the second schedule to these Rules, or in such other form substantially to the like effect as the Minister may from time to time direct.

14. On the Assigning Authority being satisfied that the ship has been marked to the surveyor's satisfaction as required by these Rules and that the prescribed fee has been paid, the certificate shall be delivered to the applicant together with a certified copy thereof.

A further certified copy of each certificate issued by any Assigning Authority other than the Chairman shall be sent to the Chairman by the Assigning Authority.

PART V

CONDITIONS OF ASSIGNMENT

Openings in Freeboard and Superstructure Decks

15. The construction and fitting of cargo and other hatchways in exposed positions on freeboard and superstructure decks shall be at least equivalent to the standards laid down in rules 16 to 22.

Canada Shipping Act—continued

16. The height of hatchway coamings on freeboard decks shall be at least 18 inches above the deck. The height of coamings on superstructure decks shall be at least 18 inches above the deck if situated within one quarter of the ship's length from the stem, and at least 12 inches if situated elsewhere.

Coamings shall be of steel, shall be substantially constructed and, where the height of the coamings above the deck exceeds 24 inches, shall be specially stiffened to the satisfaction of the Assigning Authority.

17. Covers to exposed hatchways shall be efficient and shall comply with the following requirements:—

- (i) On all ships which have a length in excess of 350 feet and which carry cargoes in bulk, the covers on exposed hatchways shall be of steel and shall comply with paragraphs (ii) and (iii) of this rule.
- (ii) Solid steel covers are to be stiffened by stiffeners spaced not more than 42 inches apart, these stiffeners being not less effective than would be provided by steel sections riveted or welded to the plate and having a section modulus in inches cubed not less than that obtained from the formula

$$\frac{I}{y} = S \times L^2 \times .025$$

where S=spacing of the stiffeners in feet

L=the length of the unsupported span in feet

I=the moment of inertia of the section in inch units

y=the distance measured from the neutral axis of the section to the extremity of the section in inches.

The thickness of the plating for solid steel covers is not to be less than .24" where the spacing of the stiffeners is 24 inches and .36" where the spacing is 42 inches. Where the spacing of the stiffeners is between 24 inches and 42 inches the thickness of the plating is to be obtained by interpolation.

- (iii) Covers of the sliding plate type stiffened on one edge by flanges or by riveted or welded stiffeners are to be so arranged that the spacing of the stiffeners when the hatch is closed does not exceed 42 inches. The stiffening at the edges of these covers and the thickness of the plating are not to be less effective than the stiffening and thickness required in paragraph (ii) of this rule for solid plate covers. Where covers of the sliding plate type are fitted and the unsupported span exceeds 12 feet 1 inch, additional support shall be provided to the satisfaction of the Assigning Authority.
- (iv) Where wood hatch covers are fitted on exposed hatchways the thickness shall be at least 2½ inches in association with a span of not more than 6 feet. The width of each bearing surface for these hatchway covers shall be at least 2½ inches.

18. (a) Where wood hatchway covers are fitted they shall be supported by a system of main beams all extending in one direction, or by a system of main beams in association with auxiliary beams which rest on top of the main beams and are fitted at right angles thereto. The unsupported span of the wood covers shall not exceed 6 feet.

Canada Shipping Act—continued

The main beams may be of rolled or built section and the auxiliary beams may be either rolled or built sections or may be of wood of rectangular section. These beams are to have section moduli in inches cubed not less than those obtained from the formula:—

$$\frac{I}{y} = S \times L^2 \times C$$

where S=the spacing of the main or auxiliary beams in feet

L=the length of the unsupported span in feet

C=.03 for steel main beams where 18" coamings are required,

C=.025 for steel main beams where 12" coamings are required,

C=.025 for steel auxiliary beams where 18" coamings are required,

C=.02 for steel auxiliary beams where 12" coamings are required,

C=.15 for wood auxiliary beams where 18" coamings are required, and

C=.12 for wood auxiliary beams where 12" coamings are required.

I=the moment of inertia of the section in inch units

y=the distance measured from the neutral axis of the section to the extremity of the section in inches.

The top flanges of the beams are to extend for the full length of the beams. Wood auxiliary beams are to be steel shod at all bearing surfaces.

(b) In the case of small wood ships where the hatchway openings are of moderate size, the beams which support the hatchway covers may be of wood provided that they have strength equivalent to that of the beams which would be required by paragraph (a) of this rule and provided the Assigning Authority is satisfied that the protection of the opening is effective.

19. Carriers or sockets for hatchway beams and fore-and-afters shall be of steel at least $\frac{1}{2}$ inch thick, and shall have a width of bearing surface of at least 3 inches.

20. Strong cleats at least $2\frac{1}{2}$ inches wide or efficient clamping devices shall be fitted at intervals of approximately 2 feet from centre to centre; the end cleats shall be placed not more than 6 inches from each corner of the hatchway. Where steel covers are fitted suitable approved types of fasteners, spaced to suit the width of the covers, are to be installed.

21. (a) Battens and wedges shall be efficient and in good condition.

(b) At least one tarpaulin in good condition, thoroughly waterproof and of ample strength, shall be provided for each hatchway in an exposed position on freeboard and superstructure decks. The material of the tarpaulins shall be guaranteed free from jute, and the minimum weight of the material, before treatment, shall be 19 ounces per square yard if to be tarred, 18 ounces per square yard if to be chemically dressed, or 16 ounces per square yard for black oil dressing.

22. At all hatchways in exposed positions on freeboard or superstructure decks suitable provision shall be made for securing the covers after the tarpaulins are battened down.

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23. Cargo, coaling and other hatchways in the freeboard deck within superstructures which are fitted with closing appliances less efficient than Class 1 but not less efficient than Class 2 shall have coamings at least 9 inches in height and closing arrangements as effective as those required for exposed cargo hatchways.

Where the closing appliances are less efficient than Class 2, the hatchways shall have coamings at least 12 inches in height, and shall have fittings and closing arrangements as effective as those required for exposed cargo hatchways.

In the case of car ferries fitted with efficient "sea gates" extending above the freeboard deck at least to the height of a standard superstructure, coamings of less height may be fitted provided the hatchways within the superstructures are fitted with close fitting steel covers having efficient securing devices. When the openings in freeboard decks are not provided with closing devices, the coamings are to extend above the freeboard deck at least to the height of a standard superstructure.

24. Machinery space openings in exposed positions on freeboard decks and raised quarter decks shall be properly framed and efficiently enclosed by steel casings of ample strength. Doors in such casings shall be of steel, efficiently stiffened, permanently attached, and capable of being closed and secured from both sides. The sills of openings shall be at least 18 inches above the freeboard deck and 12 inches above the raised quarter deck.

Fiddley, funnel and ventilator coamings shall be as high above the deck as is reasonable and practicable. Fiddley openings shall have strong steel covers permanently attached in their proper positions. Engine room skylights shall be of strong construction, preferably of steel.

25. Machinery space openings in exposed positions on superstructure decks other than raised quarter decks shall be properly framed and efficiently enclosed by strong steel casings. Doors in such casings shall be strongly constructed, permanently attached, and capable of being closed and secured from both sides. The sills of the openings shall be at least 9 inches above the superstructure decks.

Fiddley, funnel and ventilator coamings shall be as high above the deck as is reasonable and practicable. Fiddley openings shall have strong steel covers permanently attached in their proper positions. Engine room skylights shall be of strong construction, preferably of steel.

26. Machinery space openings in the freeboard deck within superstructures which are fitted with closing appliances less efficient than Class 1 shall be properly framed and efficiently closed by steel casings. Doors in such casings shall be strongly constructed, permanently attached and capable of being securely closed. The sills of such openings shall be at least 6 inches above the deck where the superstructures are closed by Class 2 closing appliances, and at least 12 inches above the deck where the closing appliances are less efficient than Class 2.

27. Flush scuttles, where fitted, shall be of iron or steel, of substantial construction, with screw or bayonet joints. Such scuttles shall be provided with a permanent chain or other suitable attachment.

28. Companionways in exposed positions on freeboard decks and on decks of enclosed superstructures shall be of substantial construction. The sills of the doorways shall be 18 inches on freeboard decks and on superstructure decks within a quarter of the ship's length from the stem, and 12

Canada Shipping Act—continued

inches on superstructure decks elsewhere. The doors shall be strongly constructed and capable of being closed and secured from both sides. Where the companionway is situated within a quarter of the ship's length from the stem, it shall be of steel and riveted to the deck plating.

29. (a) Ventilators in exposed positions on freeboard and superstructure decks to spaces below freeboard decks or decks of superstructures which are intact or fitted with Class 1 closing appliances shall have coamings of steel, substantially constructed, and efficiently connected to the deck. The deck plating at the base of the coamings shall be efficiently stiffened between the deck beams. The openings of ventilator coamings shall be provided with efficient closing arrangements.

(b) Where such ventilators are situated on the freeboard deck, or on the superstructure deck within a quarter of the ship's length from the stem, and the closing arrangements of the ventilator coamings are of a temporary character, the coamings shall be at least 30 inches in height; in other exposed positions on the superstructure deck they shall be at least 24 inches in height. Where the coaming of any ventilator exceeds 36 inches in height, it shall be specially supported and secured.

30. Where the air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the opening shall be at least 30 inches in wells on freeboard decks, 24 inches on raised quarter decks, and 12 inches on other superstructure decks. Efficient means shall be provided for closing the openings of the air pipes. Where these heights would interfere with the working of the ship a lower height may be approved provided the air pipe cap is properly protected and the air pipe is fitted with adequate means of closing.

Openings in the Sides of Ships

31. Openings in the sides of ships such as gangways, cargo ports, coaling ports, rubbish shoots or ash shoots which are below the freeboard deck shall be fitted with watertight doors or with covers which, with their securing appliances, shall be of sufficient strength.

32. (a) Scuppers and sanitary discharge pipes led through the ship's sides from spaces below the freeboard deck shall be fitted with efficient and accessible means for preventing water from passing inboard. Each separate discharge shall have either an automatic non-return valve with a positive means of closing it from a position above the freeboard deck, or two automatic non-return valves without positive means of closing, provided the upper valve is situated so that it is always accessible for examination under service conditions. The positive action valve shall be readily accessible and is to be provided with means for showing whether the valve is open or closed. Cast iron shall not be accepted for such valves where attached to the sides of the ship.

(b) The foregoing provisions of this rule shall apply to discharges from spaces within enclosed superstructures if and to the extent that the Assigning Authority considers necessary, having regard to the type and location of the inboard ends of such openings.

(c) Where scuppers are fitted in superstructures not fitted with Class 1 closing appliances they shall have efficient means for preventing the accidental admission of water below the freeboard deck.

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33. Side scuttles to spaces below the freeboard deck, or to spaces below the superstructure deck of superstructures closed by Class 1 or Class 2 closing appliances, shall be fitted with efficient inside deadlights permanently attached in their proper positions so that they can be effectively closed and secured watertight.

Where, however, such spaces in superstructures are appropriated to passengers, other than steerage passengers, or to crew, the side scuttles may have portable deadlights stowed adjacent to the side scuttles, provided they are readily accessible at all times on service. The side scuttles and deadlights shall be of substantial construction and suitable for the purpose for which they are intended.

Miscellaneous Provisions

34. Efficient guard-rails or bulwarks shall be fitted on all exposed portions of freeboard and superstructure decks.

35. (a) Where bulwarks on the weather portions of freeboard or superstructure decks form "wells", ample provision shall be made for rapidly freeing the decks of water and for draining them. The minimum freeing port area on each side of the ship for each "well" on freeboard decks and on raised quarter decks shall be that given by the following scale; the minimum area for each well on any superstructure deck other than a raised quarter deck shall be one-half the area given by that scale. Where the length of the well exceeds seven-tenths of the length of the ship, as defined in rule 39, the Assigning Authority may modify that scale. In ships with less than the standard sheer the freeing port area shall be increased as required by the Assigning Authority.

SCALE OF FREEING PORT AREA

Length of bulwarks in "well" in feet	Freeing port area on each side in square feet
15	8.0
20	8.5
25	9.0
30	9.5
35	10.0
40	10.5
45	11.0
50	11.5
55	12.0
60	12.5
65	13.0
Above 65	1 square foot for each additional 5 feet length of bulwarks.

(b) The lower edges of the freeing ports shall be as near the deck as practicable and as a general rule shall not be higher than the upper edge of the gunwale bar. Two-thirds of the freeing port area required shall be provided in the midship half of the well.

(c) All such openings in the bulwarks shall be protected by rails or bars spaced about 9 inches apart. If shutters are fitted to freeing ports, ample clearance shall be provided to prevent jamming. Hinges shall have brass pins.

36. (a) Gangways, lifelines or other satisfactory means shall be provided for the protection of the crew in getting to and from their quarters.

(b) Houses on freeboard decks for the accommodation of the crew shall be of ample strength to the satisfaction of the Assigning Authority.

Canada Shipping Act—continued

37. Notwithstanding anything in the foregoing provisions of this Part of these Rules, the Assigning Authority may

- (a) in any exceptional case, allow departures from the said provisions on condition that the freeboards computed for the ship are increased to such extent as will, in the opinion of the Board, secure that the protection afforded to the ship and crew is not less effective than it would be if the ship fully complied with the said provisions and there had been no increase of freeboards;
- (b) in the case of a wood ship, accept hatch coamings, hatch beams and closing appliances of wood, provided the efficiency of such parts of the ship is satisfactory.

PART VI

COMPUTATION OF FREEBOARDS FOR STEAMSHIPS

38. Subject to the provisions of rule 37, the freeboards for steamships other than tankers or steamships of special type to which freeboards are assigned under Parts VII and IX of these Rules, shall be computed in accordance with this Part of these Rules.

39. The length (L) to be used with these Rules is the length in feet on the summer load waterline from the foreside of the stem to the afterside of the rudder post. Where there is no rudder post, the length is to be measured from the foreside of the stem to the axis of the rudder stock. For ships with cruiser sterns, the length shall be taken as 96 per cent of the length on the designed summer load waterline or as the length from the foreside of the stem to the axis of the rudder stock if that be the greater.

40. The breadth (B) to be used with these Rules is the maximum breadth in feet amidships measured to the moulded line of the frame in iron or steel ships, and to the outside of the planking in wood or composite ships.

41. The moulded depth is the vertical distance in feet, measured amidships, from the top of the keel to the top of the freeboard deck beam at side. In wood or composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the depth is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

42. The depth (D) to be used with these Rules is the moulded depth plus the thickness of the stringer plate, or plus

$$\frac{T(L - S)}{L}$$

if that be greater,

where T is the mean thickness of the exposed deck clear of deck openings, and

S is the total length of superstructures as defined in Rule 47.

Where the topsides are of unusual form, D is the depth of a midship section having vertical topsides, standard round of beam and area of topside section equal to that in the actual midship section. Where there is a step or break in the topsides (e.g. as in the Turret Deck ship) 70 per cent of the area above the step or break is included in the area used to determine the equivalent section.

Canada Shipping Act—continued

In a ship without an enclosed superstructure covering at least $\cdot 6L$ amidships, without a complete trunk or without a combination of intact partial superstructures and trunk extending all fore and aft, the depth to

to be used with the table set out in rule 72 shall not be less than $\frac{L}{15}$ in ships

below 350 feet in length, or less than that shown in the following table for lengths of 350 feet and above. The minimum depths at intermediate lengths are to be obtained by interpolation.

L in feet	Minimum depth in feet	L in feet	Minimum depth in feet	L in feet	Minimum depth in feet
350	23.33	450	27.65	550	30.20
375	24.70	475	28.40	575	30.70
400	25.80	500	29.05	600	31.15
425	26.80	525	29.65	625	31.60

43. The coefficient of fineness (c) to be used with these Rules is given by the formula

$$c = \frac{\Delta}{L \cdot B \cdot d_1}$$

where Δ is the volume in cubic feet of the ship's moulded displacement (excluding bossing) at a mean moulded draught d_1 which is 85 per cent of the moulded depth.

The coefficient (c) shall not be taken as less than $\cdot 68$.

Strength

44. (a) The Assigning Authority shall be satisfied with the structural strength of any ship before assigning to it a freeboard.

Ships which comply with the highest standard of the rules of a classification society recognized for this purpose by the Minister shall be regarded as having sufficient strength for the minimum freeboards allowed under these Rules.

(b) Ships which do not comply with the highest standard of the rules of a classification society recognized as aforesaid shall be assigned such increased freeboards as shall be determined by the Assigning Authority, having regard to the extent to which the ship complies with the following strength moduli:—

(i) **Material:** The strength moduli are based on the assumption that the structure is built of mild steel, manufactured by the open hearth process (acid or basic) and having a tensile strength of 26 to 32 tons, of 2,240 pounds each, per square inch, and an elongation of at least 16 per cent on a length of 8 inches.

Strength Deck: The strength deck is the uppermost deck which is incorporated into and forms an integral part of the longitudinal girder within the half-length amidships.

Depth to Strength Deck (D_s): The depth to the strength deck is the vertical distance in feet amidships from the top of the keel to the top of the strength deck beam at side.

Draught (d): The draught is the vertical distance in feet amidships from the top of the keel to the centre of the diamond.

Canada Shipping Act—continued

- (ii) Longitudinal Modulus: The longitudinal modulus $\frac{I}{y}$ is the moment

of inertia I of the midship section about the neutral axis divided by the distance y measured from the neutral axis to the top of the strength deck beam at side, calculated in way of openings but without deductions for rivet holes. Areas are to be measured in square inches and distances in feet.

Below the strength deck all continuous longitudinal members, other than such parts of the under deck girders as are required entirely for supporting purposes, are included. Above the strength deck the gunwale angle bar and the extension of the sheerstrake are the only members included.

The required longitudinal modulus for effective material is expressed by the formula, f.d.B., where f is the factor obtained from the following table:—

L	f	L	f
100	1.70	380	8.70
120	1.95	400	9.30
140	2.20	420	9.90
160	2.50	440	10.50
180	2.90	460	11.10
200	3.40	480	11.70
220	3.90	500	12.30
240	4.50	520	12.90
260	5.10	540	13.50
280	5.70	560	14.10
300	6.30	580	14.70
320	6.90	600	15.30
340	7.50	620	15.90
360	8.10	...	.....

For intermediate lengths, the value of f is determined by interpolation.

This formula applies where the ratio $\frac{L}{D_s}$ does not exceed 13.5

in ships of 325 feet in length and under, and 19 in ships of 600 feet in length and above. Intermediate values for lengths between 325 feet and 600 feet are to be obtained by interpolation.

Where the length of a ship is in excess of 600 feet and the ratio $\frac{L}{D_s}$ exceeds 19 the factor f is to be increased to the satisfaction of the Board.

- (iii) Frame: For the purpose of the frame modulus, the frame is regarded as composed of a frame angle and a reverse angle each of the same size and thickness.

Frame Modulus: The modulus $\frac{I}{y}$ of the midship frame below the lowest

tier of beams is the moment of inertia I of the frame section about the neutral axis divided by the distance y measured from the neutral axis to the extremity of the frame section, calculated without deduction for rivet and bolt holes. The modulus is measured in inch units.

Canada Shipping Act—continued

The required frame modulus is expressed by the formula

$$\frac{s (d - t) (f_1 + f_2)}{1,000}$$

where s is the frame spacing in inches;

t is the vertical distance in feet measured at amidships from the top of the keel to a point midway between the top of the inner bottom at side and the top of the heel bracket (see Figure 2); where there is no double bottom, t is measured to a point midway between the top of the floor at centre and the top of the floor at side;

f_1 is a coefficient depending on H , which, in ships fitted with double bottoms, is the vertical distance in feet from the middle of the beam bracket of the lowest tier of beams at side to a point midway between the top of the inner bottom at side and the top of the heel bracket (see Figure 2). Where there is no double bottom, H is measured to a point midway between the top of the floor at centre and the top of the floor at side. Where the frame obtains additional strength from the form of the ship, due allowance is made in the value of f_1 ;

f_2 is a coefficient depending on K , which is the vertical distance in feet from the top of the lowest tier of beams at side to a point 7 feet 6 inches above the freeboard deck at side, or, if there is a superstructure, to a point 12 feet 6 inches above the freeboard deck at side (see Figure 2). The values of f_1 and f_2 are obtained from the following tables:—

H in feet:	0	7	9	11	13	15	17	19	21	23	25
f_1	9	11	12.5	15	19	24	29.5	36	43	51	59

K in feet	0	5	10	15	20	25	30	35	40
f_2	0	0.5	1.0	2.0	3.0	4.5	6.5	9.0	12.0

Intermediate values are obtained by interpolation.

This formula applies where D is between 15 feet and 60 feet, both inclusive, B is between $\frac{L}{10} + 5$ and $\frac{L}{10} + 20$ both inclusive, $\frac{L}{D_s}$ does not exceed 13.5 in ships of 325 feet in length and under, and 19 in ships of 600 feet in length and above, (intermediate values between lengths of 325 feet and 600 feet are to be obtained by interpolation), and the horizontal distance from the outside of the frame to the centre of the first row of pillars does not exceed 20 feet.

In single deck ships of ordinary form, where H does not exceed 18 feet, the frame modulus determined by the preceding method is multiplied by the factor f_3 , where

$$f_3 = 0.50 + 0.05 (H - 8).$$

Where the horizontal distance from the outside of the frame to the centre of the first row of pillars exceeds 20 feet, sufficient additional strength shall be provided to the satisfaction of the Assigning Authority.

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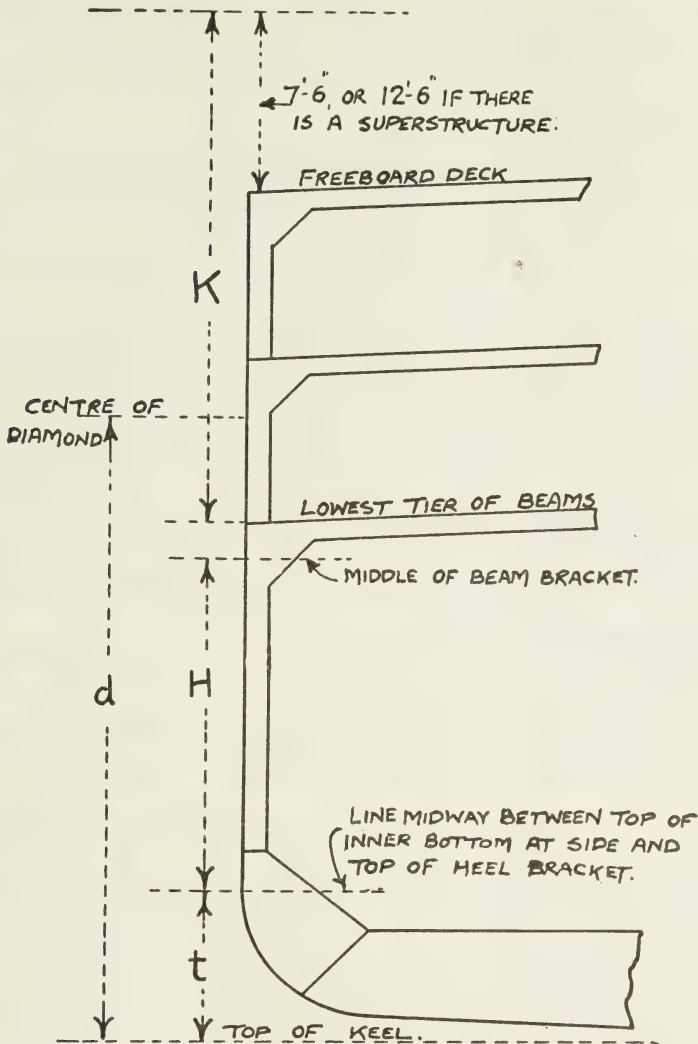


Figure 2.

Superstructures

45. The height of a superstructure is the least vertical height measured from the top of the superstructure deck to the top of the freeboard deck beams minus the difference between the moulded depth and D, as defined in rules 41 and 42.

46. The standard height of a raised quarter deck is 3 feet for ships up to and including 100 feet in length, 4 feet for ships 250 feet in length, and 6 feet for ships 400 feet in length and above. The standard height of any other superstructure or of a trunk is 6 feet for ships up to and including 250 feet in length, and 7 feet 6 inches for ships 400 feet in length and above. The standard height at intermediate lengths is obtained by interpolation.

47. The length of a superstructure (S) is the mean covered length of the parts of the superstructure which extend to the sides of the ship and lie

Canada Shipping Act—continued

within lines drawn perpendicular to the extremities of the summer load waterline, as defined in rule 39.

48. A detached superstructure is regarded as enclosed only where—

- (i) the enclosing bulkheads are of efficient construction as required by rule 49;
- (ii) the access openings in these bulkheads are fitted with Class 1 or Class 2 closing appliances (as defined in rules 50 and 51);
- (iii) all other openings in sides or ends of the superstructure are fitted with efficient weathertight means of closing;
- (iv) independent means of access to crew, machinery, bunker and other working spaces within bridges and poops are at all times available when the bulkhead openings are closed.

49. Bulkheads at exposed ends of poops, bridges and forecastles are deemed to be of efficient construction where the Assigning Authority is satisfied that, in the circumstances, they are equivalent to the following standard for ships with minimum freeboards, under which standard the stiffeners and plating are of the scantlings given in the table hereinafter contained, the stiffeners are spaced 30 inches apart, the stiffeners on poop and bridge front bulkheads have efficient end connections, and those on after bulkheads of bridges and forecastles extend for the whole distance between the margin angles of the bulkheads.

EXPPOSED BULKHEADS OF SUPERSTRUCTURES OF STANDARD HEIGHT

Bridge Front Bulkheads. Unprotected bulkheads of poops .4L or more in length		Bulkheads of Poops partially protected or less in length than .4L		After bulkheads of Bridges and Forecastles	
Length of ship	Bulb angle stiffeners	Length of ship	Plain angle stiffeners	Length of ship	Plain angle stiffeners
Feet	Inches	Feet	Inches	Feet	Inches
Under 160	5½ x 3 x .30	Under 150	3 x 2½ x .30	Under 150	2½ x 2½ x .26
160	6 x 3 x .32	150	3½ x 2½ x .32	150	3 x 2½ x .28
200	6½ x 3 x .34	200	4 x 3 x .34	250	3½ x 3 x .30
240	7 x 3 x .36	250	4½ x 3 x .36	350	4 x 3 x .32
280	7½ x 3 x .38	300	5 x 3 x .38	.....	.....
320	8 x 3 x .40	350	5½ x 3 x .42	.....	.....
360	8½ x 3 x .42	400	6 x 3 x .44	.....	.....
400	9 x 3 x .44	450	6½ x 3½ x .46	.....	.....
440	9½ x 3½ x .46	500	7 x 3½ x .48	.....	.....
480	10 x 3½ x .48	550	7 x 3½ x .50	.....	.....
520	10½ x 3½ x .50	.....	.....	.....	.....
560	11 x 3½ x .52	.....	.....	.....	.....
Length of ship	Bulkhead plating	Length of ship	Bulkhead plating	Length of ship	Bulkhead plating
Feet	Inch	Feet	Inch	Feet	Inch
200 and under	.3	160 and under	.24	160 and under	.20
380 and above	.44	400 and above	.38	400 and above	.30

For ships intermediate in length the thicknesses of bulkhead plating are obtained by interpolation.

Appliances for Closing Access Openings in Bulkheads at Ends of Detached Superstructures

50. Class 1 closing appliances shall be closing appliances which comply with the following conditions:—They shall be constructed of iron or steel,

Canada Shipping Act—continued

they shall in all cases be permanently and strongly attached to the bulkhead, they shall be framed, stiffened and fitted so that the whole structure is of equivalent strength to the unpierced bulkhead and they shall be weather-tight when closed. The means for securing these appliances shall be permanently attached to the bulkhead or to the appliances and the latter shall be so arranged that they can be closed and secured from both sides of the bulkhead or from the deck above. The sills of the access openings shall be at least 12 inches above the deck.

51. The following closing appliances shall be Class 2 closing appliances:

- (i) Strongly framed hard wood hinged doors, which are not more than 30 inches wide or less than 2 inches thick;
- (ii) Shifting boards fitted for the full height of the openings in channels riveted to the bulkheads, the shifting boards being at least 2 inches thick where the width of opening is 30 inches or less, and increased in thickness at the rate of 1 inch for each additional 15 inches of width; or
- (iii) Portable plates of equal efficiency with the appliances specified in (i) or (ii).

Temporary Appliances for Closing Openings in Superstructure Decks

52. Temporary closing appliances for middle line openings in the deck of an enclosed superstructure shall be regarded as efficient if they consist of—

- (i) a steel coaming not less than 9 inches in height efficiently riveted to the deck;
- (ii) wood hatchway covers, as described in rule 17, secured by hemp lashings; and
- (iii) hatchway supports as required by rules 18 and 19.

Effective Length of Detached Superstructures

53. For the purpose of determining the effective length of detached superstructures rules 54 to 59 shall apply.

54. (a) Where exposed bulkheads at the ends of poops, bridges, and forecastles are not of efficient construction (*see* rule 49) they shall be treated as non-existent.

(b) Where in the side plating of a superstructure there is an opening not provided with permanent means of closing, the part of the superstructure in way of the opening shall be regarded as having no effective length.

(c) Where the height of a superstructure is less than the standard, its effective length shall be reduced in the ratio of the actual to the standard height. Where the height exceeds the standard, no increase shall be made in the effective length of the superstructure.

55. (a) Where, at the end of a poop, there is an efficient bulkhead and the access openings are fitted with Class 1 closing appliances, the length of the poop to the bulkhead shall be the effective length.

(b) Where the access openings in an efficient bulkhead are fitted with Class 2 closing appliances and the length of the poop to the bulkhead is $\cdot 5L$ or less, 100 per cent of that length shall be the effective length; where the length is $\cdot 7L$ or more, 90 per cent of that length shall be the effective length; where the length is between $\cdot 5L$ and $\cdot 7L$ an intermediate percentage of that length shall be the effective length; but where in any of these cases an allowance is given for an efficient adjacent trunk (*see* rule 59) only 90 per cent of the length to the bulkhead shall be the effective length.

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(c) Fifty per cent of the length of an open poop or of an open extension of a poop beyond an efficient bulkhead shall be the effective length of the open poop or of the extension, as the case may be.

56. Where, at the end of a raised quarter deck, there is an efficient intact bulkhead, the length of the raised quarter deck to the bulkhead shall be the effective length. Where the bulkhead is not intact, the superstructure shall be regarded as a poop of less than the standard height.

57. (a) Where, in a bridge, there is an efficient bulkhead at each end, and the access openings in the bulkheads are fitted with Class 1 closing appliances, the length between the bulkheads shall be the effective length.

(b) Where, in a bridge, the access openings in the forward bulkhead are fitted with Class 1 closing appliances and the access openings in the after bulkhead with Class 2 closing appliances, the length between the bulkheads shall be the effective length; but where an allowance is given for an efficient trunk adjacent to the after bulkhead (*see* rule 59), 90 per cent of the length shall be the effective length. Where the access openings in both bulkheads are fitted with Class 2 closing appliances 90 per cent of the length between the bulkheads shall be the effective length. Where the access openings in the forward bulkhead are fitted with Class 1 or Class 2 closing appliances and the access openings in the after bulkhead have no closing appliances, 75 per cent of the length between the bulkheads shall be the effective length. Where the access openings in both bulkheads have no closing appliances, 50 per cent of the length shall be the effective length.

(c) 75 per cent of the length of an open extension beyond the after bulkhead of a bridge, and 50 per cent of that beyond the forward bulkhead shall be the effective length.

58. (a) Where, at the end of a forecastle, there is an efficient bulkhead and the access openings are fitted with Class 1 or Class 2 closing appliances, the length of the forecastle to the bulkhead shall be the effective length.

(b) Where no closing appliances are fitted and the sheer forward of amidships is not less than the standard sheer, 100 per cent of the length of a forecastle forward of $\cdot 1L$ from the forward perpendicular shall be the effective length; where the sheer forward is half the standard sheer or less, 50 per cent of that length shall be the effective length; and where the sheer forward is intermediate between the standard and half the standard sheer, an intermediate percentage of that length shall be the effective length.

(c) 50 per cent of the length of an open extension beyond the bulkhead of a forecastle or beyond $\cdot 1L$ from the forward perpendicular shall be the effective length.

59. (a) A trunk or similar structure which does not extend to the sides of the ship shall be regarded as efficient provided that—

- (i) the trunk is at least as strong as a superstructure;
- (ii) the hatchways are in the trunk deck and comply with the requirements of rules 15 to 22, and the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness;
- (iii) a permanent working platform fore and aft fitted with guard-rails is provided by the trunk deck or by detached trunks connected to other superstructures by efficient permanent gangways;
- (iv) ventilators are protected by the trunk, by watertight covers or by equivalent means;
- (v) open rails are fitted on the weather portions of the freeboard deck in way of the trunk for at least half their length;

Canada Shipping Act—continued

(vi) the machinery casings are protected by the trunk, by a superstructure of standard height, or by a deck house of the same height and of equivalent strength.

(b) Where access openings in poop and bridge bulkheads are fitted with Class 1 closing appliances, 100 per cent of the length of an efficient trunk reduced in the ratio of its mean breadth to B (as defined in rule 40), shall be added to the effective length of the superstructures. Where the access openings in these bulkheads are not fitted with Class 1 closing appliances 90 per cent of the length reduced as above shall be added.

(c) Where the height of the trunk is less than the standard height as determined in accordance with rule 46, the addition referred to in paragraph (b) of this rule shall be reduced in the ratio of the actual to the standard height; where the height of hatchway coamings on the trunk deck is less than the height of coamings required by rule 16, a reduction from the actual height of trunk shall be made corresponding to the difference between the actual height of the coamings and the height required by rule 16.

Effective Length of Enclosed Superstructures With Middle Line Openings

60. Where there is an enclosed superstructure with one or more middle line openings in the deck not provided with permanent means of closing in accordance with rules 15 to 22, the effective length of the superstructure is determined as follows:—

(i) Where efficient temporary closing appliances are not provided for the middle line deck openings in accordance with rule 52, or the breadth of opening is 80 per cent or more of the breadth (B_1) of the superstructure deck at the middle of the opening, the ship shall be regarded as having an open well in way of each opening, and freeing ports shall be provided in way of this well. The effective length of superstructure between openings shall be ascertained by applying rules 55, 57 and 58.

(ii) Where efficient temporary closing appliances as defined in rule 52 are provided for middle line deck openings and the breadth of opening is less than $\cdot 8B_1$, the effective length of superstructure between openings shall be ascertained by applying rules 55, 57 and 58, except that where access openings in 'tween deck bulkheads are closed by Class 2 closing appliances they shall be regarded as being closed by Class 1 closing appliances. The total effective length shall be obtained by adding to the length thus determined the difference between that length and the length of the ship, modified in the ratio of—

$$\frac{B_1 - b}{B_1} \text{ where } b = \text{breadth of deck opening;}$$

where $\frac{B_1 - b}{B_1}$ is greater than $\cdot 5$ it is taken as $\cdot 5$.

Deductions for Superstructures

61. Where the effective length of superstructure is $1\cdot 0L$, the deduction from the freeboard shall be 14 inches at 80 feet length of ship, 34 inches at 280 feet length, and 42 inches at 400 feet length and above; deductions at intermediate lengths shall be obtained by interpolation. Where the total effective length of superstructure is less than $1\cdot 0L$, the deduction shall be a percentage obtained from the following table:—

Canada Shipping Act—continued

Superstructures	Total effective length of superstructures (E)											Line
	0	.1L	.2L	.3L	.4L	.5L	.6L	.7L	.8L	.9L	1.0L	
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	
All types with forecastle and without detached bridge.....	0	5	10	15	23.5	32	46	63	75.3	87.7	100	A
*All types with forecastle and detached bridge.	0	6.3	12.7	19	27.5	36	46	63	75.3	87.7	100	B

* Where the effective length of a detached bridge is less than .2L the percentages are obtained by interpolation between lines B and A.

Where no forecastle is fitted the above percentages are reduced by 5.

Percentages for intermediate lengths of superstructures are obtained by interpolation.

Sheer

62. The sheer shall be measured from the deck at side to a line of reference drawn parallel to the keel through the sheer line at amidships.

In flush deck ships and in ships with detached superstructures, the sheer shall be measured at the freeboard deck.

In ships with top sides of unusual form in which there is a step or break in the top sides, the sheer shall be considered in relation to the equivalent depth amidships determined in accordance with rule 42.

In ships with a superstructure of standard height which extends over the whole length of the freeboard deck, the sheer shall be measured at the superstructure deck; where the height exceeds the standard, the sheer may be considered in relation to the standard height.

Where a superstructure is intact or access openings in its enclosing bulkheads are fitted with Class 1 closing appliances, and the superstructure deck has at least the same sheer as the exposed freeboard deck, the sheer of the enclosed portion of the freeboard deck shall not be taken into account.

63. The ordinates (in inches) of the standard sheer profile are given in the following table, where L is the number of feet in the length of the ship:—

Station	Ordinate	Factor
A.P.	.1 L + 10	1
1/6 L from A.P.	.0445 L + 4.45	4
1/3 L from A.P.	.011 L + 1.1	2
Amidships	0	4
1/3 L from F.P.	.022 L + 2.2	2
1/6 L from F.P.	.089 L + 8.9	4
F.P.	.2 L + 20	1

A.P.=After end of the summer load waterline.

F.P.=Fore end of the summer load waterline.

64. (a) Where the sheer profile differs from the standard, the seven ordinates of each profile shall be multiplied by the appropriate factors given in the table of ordinates. The difference between the sums of the respective products, divided by 18, measures the deficiency or excess of sheer.

(b) Where the after half of the sheer profile is greater than the standard and the forward half is less than the standard, no credit shall be allowed for the part in excess.

(c) Where the forward half of the sheer profile exceeds the standard, and the after portion of the sheer profile is not less than 75 per cent of the standard, credit shall be allowed for the part in excess; where the after part is less than 50 per cent of the standard no credit shall be given for the excess

Canada Shipping Act—continued

sheer forward. Where the after sheer is between 50 per cent and 75 per cent of the standard, an intermediate allowance may be granted for excess sheer forward.

65. The correction for variations from the standard sheer shall be the deficiency or excess of sheer determined in accordance with rule 64 multiplied by $.75 - \frac{S}{2L}$ where S is the total length of the superstructure as defined in rule 47.

66. Where the sheer is less than the standard, the correction for deficiency in sheer, determined in accordance with rule 65 shall be added to the freeboard.

67. In flush deck ships and in ships where an enclosed superstructure covers $\cdot 1L$ before and $\cdot 1L$ abaft amidships, the correction for excess of sheer determined in accordance with rule 65 shall be deducted from the freeboard; in ships with detached superstructures where no enclosed superstructure covers amidships, no deduction for excess of sheer shall be made from the freeboard; where an enclosed superstructure covers less than $\cdot 1L$ before and $\cdot 1L$ abaft amidships, the deduction for excess of sheer shall be obtained by interpolation. The maximum deduction for excess of sheer shall be $1\frac{1}{2}$ inches at 100 feet length of ship and shall increase at the rate of $1\frac{1}{2}$ inches for each additional 100 feet in the length of the ship.

Round of Beam

68. The standard round of beam of the freeboard deck is one-fiftieth of the breadth of the ship.

69. Where the round of beam of the freeboard deck is greater or less than the standard, the freeboard shall be decreased or increased respectively by one-fourth of the difference between the actual and the standard round of beam, multiplied by the proportion of the length of the freeboard deck not covered by enclosed superstructures. Twice the standard round of beam is the maximum for which allowance may be given.

Minimum Freeboards

70. The minimum freeboard in summer shall be the freeboard derived from the table set out in rule 72 after correction for departures from the standards and after deduction for superstructures in accordance with these rules, so however that if the freeboard, calculated in accordance with these Rules but before the correction required by note (v) appended to the table is made, be less than 2 inches, 2 inches shall be substituted therefor.

71. The minimum freeboards for the intermediate and winter seasons shall be obtained by an addition to the summer freeboard of a distance in inches obtained by multiplying the summer draught in feet measured from the top of the keel to the centre of the load line diamond, (see rule 10 (b)), by the appropriate factors given in the following table:—

Length of ship	Factor for intermediate season	Factor for winter season
400 feet and under.....	.25	.50
450 feet.....	.25	.65
500 feet.....	.35	.80
550 feet and over.....	.45	1.00

Factors for intermediate lengths are obtained by interpolation.

Canada Shipping Act—continued**72. BASIC MINIMUM SUMMER FREEBOARDS FOR STEAMSHIPS WHICH COMPLY WITH THE STANDARDS LAID DOWN IN THESE RULES**

L	Freeboard	L	Freeboard	L	Freeboard
Feet	Inches	Feet	Inches	Feet	Inches
80	7.2	270	33.8	460	84.5
90	8.0	280	35.8	470	87.5
100	8.9	290	37.8	480	90.5
110	9.9	300	40.0	490	93.4
120	11.0	310	42.2	500	96.3
130	12.1	320	44.6	510	99.1
140	13.3	330	47.0	520	101.9
150	14.5	340	49.5	530	104.7
160	15.7	350	52.1	540	107.4
170	17.1	360	54.8	550	110.0
180	18.5	370	57.6	560	112.6
190	19.9	380	60.5	570	115.1
200	21.4	390	63.4	580	117.6
210	23.0	400	66.4	590	120.0
220	24.6	410	69.4	600	122.3
230	26.3	420	72.4	610	124.5
240	28.1	430	75.4	620	126.7
250	29.9	440	78.5	630	128.9
260	31.8	450	81.5	.....	.....

- (i) The minimum freeboard for flush deck steamships shall be obtained by an addition to the above table at the rate of $1\frac{1}{2}$ inches for every 100 feet of length.
- (ii) The freeboards at intermediate lengths are obtained by interpolation.
- (iii) Where c exceeds .68, the freeboard shall be multiplied by the factor

$$\frac{c + .68}{1.36}$$

- (iv) Where in the case of a ship of less than 350 feet in length the depth D is less than $\frac{L}{15}$, D is to be taken as $\frac{L}{15}$, and where in the case of such ship the depth D exceeds $\frac{L}{15}$ the freeboard is to be increased by $\left\{ D - \frac{L}{15} \right\} R$ inches, where R is equal to $\frac{L}{130}$.

Where in the case of a ship of 350 feet in length and above the depth D exceeds or is less than $\frac{L}{15}$ the freeboard is to be increased or decreased accordingly by $\left\{ D - \frac{L}{15} \right\} R$ inches where R is equal to

$\frac{L}{130}$ at lengths less than 390 feet and 3 at lengths of 390 feet and

above, provided that in no case shall the minimum depth be taken as less than the minimum depth given in the following table:—

Canada Shipping Act—continued

L	Minimum depth	L	Minimum depth	L	Minimum depth
350	23.33	450	27.65	550	30.20
375	24.70	475	28.40	575	30.70
400	25.80	500	29.05	600	31.15
425	26.80	525	29.65	625	31.60

Minimum depths at intermediate lengths are obtained by interpolation.

In a ship with an enclosed superstructure covering at least .6L amidships, or with a complete trunk, or with a combination of intact partial superstructures and trunk which extends all fore

and aft, where D is less than $\frac{L}{15}$, the freeboard shall be reduced at

the above rate. Where the height of superstructures or trunk is less than the standard height, as determined in accordance with rule 46 the reduction shall be modified in the ratio which the actual height bears to the standard height.

- (v) Where the actual depth to the surface of the freeboard deck amidships is greater or less than D, the difference between these two depths (in inches) shall be added to or deducted from the freeboard as the case may be.

73. The freeboard for a wood steamship is the final freeboard the ship would obtain if constructed of iron or steel with the addition of such penalties as the Assigning Authority may determine, having regard to the construction, age and condition of the ship.

PART VII

FREEBOARDS FOR TANKERS

74. Tanker freeboards shall be assigned to a ship, being a tanker, if the ship complies with the conditions of assignment and also complies with this Part of these Rules to the extent thereby required in the case of that ship.

Supplementary Conditions of Assignment

75. The structure of the ship shall be of sufficient strength for the increased draught corresponding to the freeboard assigned.

76. The ship shall have a forecastle of which the length is not less than 7 per cent of the length of the ship and the height is not less than the standard height.

77. The openings in machinery casings on the freeboard deck shall be fitted with steel doors. The casings shall be protected by an enclosed poop or bridge of at least standard height, or by a deck house of equal height and of equivalent strength. The bulkheads at the ends of these structures shall be of the scantlings required for bridge front bulkheads. All entrances to the structures from the freeboard deck shall be fitted with effective closing appliances and the sills shall be at least 18 inches above the deck. Exposed machinery casings on the superstructure deck are to be of substantial construction, and all openings in them shall be fitted with steel closing appliances permanently attached to the casings and capable of being closed

Canada Shipping Act—continued

and secured from both sides; the sills of such openings shall be at least 15 inches above the deck. Fiddley openings shall be as high above the superstructure deck as is reasonable and practicable, and shall have strong steel covers permanently attached in their proper positions.

78. An efficiently constructed permanent gangway of sufficient strength for its exposed position shall be fitted fore and aft at the level of the superstructure deck between the poop and midship bridge, and, when any of the crew are berthed forward, from the bridge to the forecastle, unless other equivalent means of access are provided to carry out the purpose of the gangway, such as passages below deck.

79. Safe and satisfactory access from the gangway level to the quarters of the crew, the machinery space and all other parts used in the necessary work of the ship, shall be available at all times. This rule does not apply to pump rooms if suitable means of access are provided from the freeboard deck, and the access openings are fitted with Class 1 closing appliances.

80. All hatchways on the freeboard deck and on the deck of expansion trunks shall be closed watertight by efficient steel covers.

81. Ventilators to spaces below the freeboard deck shall be of ample strength or shall be protected by superstructures or by equally efficient means.

82. Ships with bulwarks shall have open rails fitted for at least half the length of the exposed portion of the weather deck or such other freeing arrangements as are in the opinion of the Assigning Authority effective for the purpose of freeing the decks of water. The upper edge of the sheerstrake shall be kept as low as practicable, and as a general rule shall not be higher than the upper edge of the gunwale bar. Where superstructures are connected by trunks, open rails shall be fitted for the whole length of the weather portions of the freeboard deck.

Computation of Freeboard

83. Where the Assigning Authority is satisfied that the foregoing requirements are fulfilled, freeboards shall be computed in accordance with Part VI of these Rules, subject to the provisions of rules 84 and 85, and to the substitution of the table set out in rule 86 for the table set out in rule 72, provided, however, that no addition shall be made under note (i) appended to the table in rule 72 in respect of a flush deck steamship.

84. In the case of a tanker having superstructures, when the total effective length of superstructure is less than 1.0L, the deduction shall be the percentage of the deduction for a superstructure of length 1.0L, obtained from the following table:—

Total effective length of superstructures

—	0	.1L	.2L	.3L	.4L	.5L	.6L	.7L	.8L	.9L	1.0L
		Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
All types.....	0	7	14	21	31	41	52	63	75.3	87.7	100

85. Where the sheer is greater than the standard, the correction for excess sheer as determined under rule 65 shall be deducted from the freeboard for all tankers. Rule 67 shall not apply except that the maximum

Canada Shipping Act—continued

deduction for excess sheer shall be $1\frac{1}{2}$ inches at 100 feet length of ship and shall increase at the rate of $1\frac{1}{2}$ inches for each additional 100 feet in the length of the ship.

36. FREEBOARD TABLE FOR TANKERS

L		L		L	
Freeboard		Freeboard		Freeboard	
Feet	Inches	Feet	Inches	Feet	Inches
80	6.4	210	21.3	340	44.3
90	7.2	220	22.8	350	46.4
100	8.1	230	24.3	360	48.5
110	9.1	240	25.9	370	50.6
120	10.1	250	27.5	380	52.7
130	11.1	260	29.2	390	54.9
140	12.2	270	30.9	400	57.1
150	13.3	280	32.7	410	59.4
160	14.5	290	34.5	420	61.7
170	15.8	300	36.4	430	64.1
180	17.1	310	38.3	440	66.5
190	18.5	320	40.2	450	69.0
200	19.9	330	42.2	460	71.5

The freeboard for tankers above 460 feet in length shall be specially considered and the assigned freeboards are to be approved by the Board before a certificate is issued.

PART VIII

FREEBOARDS FOR SAILING SHIPS

37. Freeboards for sailing ships shall, subject to the provisions of rule 37 and rules 88 to 94, be computed from the freeboard table for sailing ships contained in rule 93 in the same manner as the freeboards for steamships are computed from the freeboard table for steamships contained in rule 72.

38. The depth (D) to be used in computing the freeboards for sailing ships shall be obtained in the same manner as given in rule 42 provided that in sailing ships having a greater rate of rise of floor than $1\frac{1}{2}$ inches per foot, the vertical distance from the top of keel referred to in rule 41 shall be reduced by half the difference between the total rise of floor at the half-breadth of the ship and the total rise at $1\frac{1}{2}$ inches per foot. $2\frac{1}{2}$ inches per foot of half-breadth is the maximum rate of rise for which a deduction may be made.

Where the form at the lower part of the midship section is of a hollow character or thick garboards are fitted, the depth shall be measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

The depth used with the freeboard table shall be taken as not less than

$$\frac{L}{12}.$$

39. The coefficient of fineness (c) used with the freeboard table contained in rule 93 shall be taken as not less than .62 and not greater than .72.

90. In wood ships the Assigning Authority shall be satisfied as to the efficiency of the construction and closing arrangements of superstructures for which deductions are made from the freeboard.

91. Where the effective length of superstructures is 1.0L, the deduction from the freeboard shall be 3 inches at 80 feet length of ship, and 18 inches

Canada Shipping Act—continued

at 230 feet length; deductions at intermediate lengths shall be obtained by interpolation. Where the total effective length of superstructure is less than 1·0L, the deduction shall be a percentage obtained from the following table:—

Type of superstructures	Total effective length of superstructures (E)											Line
	0	.1L	.2L	.3L	.4L	.5L	.6L	.7L	.8L	.9L	1.0L	
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	
All types without bridge.....	0	7	13	17	23.5	30	47.5	70	80	90	100	A
*All types with bridge.....	0	7	14.7	22	32	42	56	70	80	90	100	B

* Where the effective length of bridge is less than .2L, the percentages are obtained by interpolation between lines B and A.

Percentages for intermediate lengths of superstructures are obtained by interpolation.

92. No addition to the freeboard shall be required for the intermediate season, but an increase of 2 inches shall be required for the winter season.

93. MINIMUM FREEBOARDS FOR SUMMER AND INTERMEDIATE SEASONS FOR IRON OR STEEL FLUSH DECK SAILING SHIPS WHICH COMPLY WITH THE STANDARDS LAID DOWN IN THESE RULES.

L	Freeboard	L	Freeboard
Feet	Inches	Feet	Inches
80	8.4	160	23.0
90	9.9	170	25.2
100	11.4	180	27.5
110	13.0	190	29.7
120	14.8	200	32.0
130	16.7	210	34.3
140	18.7	220	36.5
150	20.8	230	38.8

(i) The minimum freeboards at intermediate lengths are obtained by interpolation.

(ii) Where c exceeds .62, the freeboard shall be multiplied by the factor

$$\frac{c + .62}{1.24}$$

(iii) Where D exceeds $\frac{L}{12}$ the freeboard shall be increased by

$$\left\{ D - \frac{L}{12} \right\} \times \left\{ 1 + \frac{L}{250} \right\} \text{ inches}$$

(iv) Where the actual depth to the surface of the freeboard deck amidships is greater or less than D , the difference between these two depths (in inches) shall be added to or deducted from the freeboard, as the case may be.

(v) The freeboards for sailing ships above 230 feet in length shall be specially considered, and the assigned freeboards are to be approved by the Board before a certificate is issued.

94. The freeboard for a wood sailing ship is the final freeboard the ship would obtain if constructed of iron or steel with the addition of such penalties as the Assigning Authority may determine, having regard to the classification, construction, age and condition of the ship.

Canada Shipping Act—continued

PART IX

SPECIAL SHIPS

95. Sandsuckers, open hopper barges, and other ships of special design which cannot be assigned load lines by the direct application of these Rules shall be assigned load lines based on the individual consideration of each ship, and no such ship shall be marked and no load line certificate shall be issued until the approval of the Board as to the freeboard to be allowed such ship is obtained.

PART X

LOAD LINES

96. (1) The maximum depth to which a steamship is entitled to be loaded during the summer season, which shall be that period from the 16th day of May to the 15th day of September in any year, both dates inclusive, shall be the depth indicated by the summer load line.

(2) The maximum depth to which a steamship is entitled to be loaded during the intermediate seasons, which shall be the periods from the 16th day of April to the 15th day of May and from the 16th day of September to the 31st day of October in any year, all dates inclusive, shall be the depth indicated by the intermediate load line.

(3) The maximum depth to which a steamship is entitled to be loaded during the winter season, which shall be that period from the 1st day of November in any year to the 15th day of April in the next year, both dates inclusive, shall be the depth indicated by the winter load line.

(4) The maximum depth to which a sailing ship is entitled to be loaded during the summer and intermediate seasons, as in this rule defined, shall be the depth indicated by the summer load line.

(5) The maximum depth to which a sailing ship is entitled to be loaded during the winter season, as in this rule defined, shall be the depth indicated by the winter load line.

97. Ships which are marked with load lines in accordance with rules made under the provisions of Section 424 of the Act and which have valid load line certificates may, when employed in making voyages on lakes or rivers, use those load line marks in place of the load line marks prescribed in these Rules and where those load line marks are so used with respect to steamships the letters T, S and W, used to indicate such marks, shall have the same meaning as provided in rule 10 for the letters S, I and W, respectively, and where such load line marks are so used with respect to sailing ships the letter F and the centre of the disc used to indicate such marks shall mean the summer load line and the winter load line, respectively.

PART XI

EXEMPTIONS

98. If, in the opinion of the Assigning Authority, it would be unreasonable or impracticable to require that a ship, the keel of which was laid before the 1st day of July, 1936, should comply with all the provisions of these Rules, the Assigning Authority may exempt that ship from such of the provisions as appear to be unreasonable or impracticable provided that

Canada Shipping Act—continued

the freeboard which would be assigned if the ship fully complied with all the provisions of these Rules is increased to such extent as the Assigning Authority, with the approval of the Board, considers sufficient to make up for non-compliance with the provisions of these Rules.

FIRST SCHEDULE

Gross Tonnage	Fees					
	Classed Ships			Unclassed Ships		
	1 Issue of cer- tificate	2 Renewal of cer- tificate	3 Annual Survey	4 Issue of cer- tificate	5 Renewal of cer- tificate	6 Annual survey
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Under 500 tons.....	30 00	10 00	10 00	55 00	55 00	10 00
500 tons and under 1,000....	40 00	10 00	10 00	75 00	75 00	10 00
1,000 " " 2,000....	55 00	15 00	15 00	110 00	110 00	15 00
2,000 " " 3,000....	65 00	17 50	17 50	140 00	140 00	17 50
3,000 " " 4,000....	70 00	20 00	20 00	155 00	155 00	20 00
4,000 " " 5,000....	75 00	20 00	20 00	170 00	170 00	20 00
5,000 " " 6,000....	80 00	20 00	20 00	185 00	185 00	20 00
6,000 " " 7,000....	85 00	25 00	20 00	200 00	200 00	20 00
7,000 " " 8,000....	90 00	25 00	20 00	215 00	215 00	20 00
8,000 " " 9,000....	95 00	25 00	20 00	230 00	230 00	20 00
9,000 " " 10,000....	100 00	25 00	20 00	245 00	245 00	20 00
10,000 tons and over.....	100 00	25 00	20 00	245 00	245 00	20 00
				plus \$15.00 for each additional 1,000 tons	plus \$15.00 for each additional 1,000 tons	

For barges, scows or other such vessels towed, under 1,000 tons, gross tonnage, fees as follows shall be charged:

For the issue of a certificate	\$30.00
For the renewal of a certificate	10.00
For annual survey	10.00

Application of Fees

1. (a) In the case of the survey of an unclassified steamship for the issue or renewal of a load line certificate, half the fee set out in column 4 will be charged if the survey be carried out concurrently with the annual inspection required under the provisions of section 387 of the Act.

(b) If the annual load line survey of a steamship is made at the same time as the annual inspection required under the provisions of section 387 of the Act no fee will be charged under column 3 or column 6.

2. Where minor alterations have been made to a ship having a load line certificate in force, which involve an alteration of the freeboard, but do not require a full survey, the fee in column 2 will be charged.

NOTE:—The first Schedule above has been revoked and a new First Schedule substituted therefor by Order in Council P.C. 3752 of 26th July, 1949. A copy of Order in Council (P.C. 3752) appears on page 3830.

Canada Shipping Act—continued

SECOND SCHEDULE

Form L.L. 3A

LOCAL LOAD LINE CERTIFICATE FOR A SHIP MAKING VOYAGES ON LAKES OR RIVERS

ISSUED UNDER THE PROVISIONS OF THE CANADA SHIPPING ACT, 1934

Name of ship Official number
 Port of registry
 Gross tonnage

Freeboard from deck line

Summerfeet.....inches.

Intermediatefeet.....inches

Winterfeet.....inches

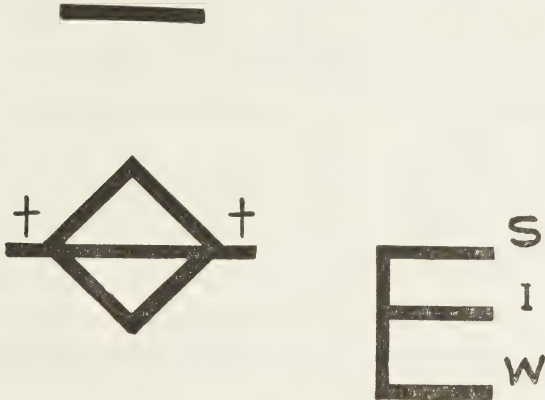
The upper edge of the deck line from which these freeboards are measured is inches above the top of the deck at side.

Load Line

(S) Upper edge of line through centre of diamond.

(I)inches below S.

(W)inches below S.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the provisions of the Canada Shipping Act, 1934.

This certificate remains in force until

Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

+Letters indicating the name of the Assigning Authority.

NOTE.—Where a certificate is issued in respect of a sailing ship the intermediate load line mark will not be shown.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued**NOTES**

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.

2. The periods during which the seasonal load lines apply are as stated in the Load Line Rules for Ships making voyages on Lakes or Rivers.

3. This certificate will be cancelled by the Minister if—

(a) material alterations have taken place in the hull or superstructures of the ship which affect the position of the load lines; or

(b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or

(c) the annual survey is not made as required under the provisions of the Canada Shipping Act, 1934.

4. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause, to comply with such requirement, he shall for each offence be liable to a fine not exceeding fifty dollars.

5. Ships loading in salt or brackish water for voyages through lakes or rivers must be so loaded that when they go into fresh water the appropriate load line marks will not be submerged.

**APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS OF
DETACHED SUPERSTRUCTURES**

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

Revised First Schedule

P.C. 3752

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 26th day of July, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Transport and under the authority of the Canada Shipping Act, 1934, is pleased to amend the Load Line Rules for Ships making Voyages on Lakes or Rivers, made and established by Order in Council P.C. 62 of 18th January 1949, and the said Rules are hereby amended, effective December 1, 1949, by revoking the First Schedule thereto and by substituting therefor the new First Schedule hereto annexed.

N. A. ROBERTSON,

Clerk of the Privy Council.

Canada Shipping Act—continued

FIRST SCHEDULE

Gross Tonnage	Fees					
	Classed Ships			Unclassed Ships		
	1	2	3	4	5	6
	Issue of certificate	Renewal of certificate	Annual survey	Issue of certificate	Renewal of certificate	Annual survey
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Under 500 tons.....	45 00	20 00	20 00	110 00	110 00	20 00
500 tons and under 1,000 tons..	70 00	20 00	20 00	150 00	150 00	20 00
1,000 " 2,000 " ..	90 00	30 00	30 00	220 00	220 00	30 00
2,000 " 3,000 " ..	115 00	35 00	35 00	280 00	280 00	35 00
3,000 " 4,000 " ..	125 00	40 00	40 00	310 00	310 00	40 00
4,000 " 5,000 " ..	135 00	40 00	40 00	340 00	340 00	40 00
5,000 " 6,000 " ..	145 00	40 00	40 00	370 00	370 00	40 00
6,000 " 7,000 " ..	155 00	40 00	40 00	400 00	400 00	40 00
7,000 " 8,000 " ..	165 00	40 00	40 00	430 00	430 00	40 00
8,000 " 9,000 " ..	175 00	40 00	40 00	460 00	460 00	40 00
9,000 " 10,000 " ..	185 00	40 00	40 00	490 00	490 00	40 00
10,000 tons and over.....	185 00	40 00	40 00	490 00	490 00	40 00
				plus \$30.00 for each addi- tional 1,000 tons	plus \$30.00 for each addi- tional 1,000 tons	

For barges, scows or other such vessels towed, under 1,000 tons, gross tonnage, fees as follows shall be charged:—

For the issue of a certificate.....	\$60.00
For the renewal of a certificate.....	20.00
For annual survey.....	20.00

Application of Fees

1. (a) In the case of the survey of an unclassified steamship for the issue or renewal of a load line certificate, half the fee set out in column 4 will be charged if the survey be carried out concurrently with the annual inspection required under the provisions of section 387 of the Act.

(b) If the annual load line survey of a steamship is made at the same time as the annual inspection required under the provisions of section 387 of the Act no fee will be charged under column 3 or column 6.

2. Where minor alterations have been made to a ship having a load line certificate in force, which involve an alteration of the freeboard, but do not require a full survey, the fee in column 2 will be charged.

Canada Shipping Act—continued**35. Load Line Rules for ships making international voyages and voyages on the coasts of Canada**

P.C. 63

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of January, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of the Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The Load Line Rules for Ships making International Voyages, etc., established by Order in Council P.C. 3094 of 18th December, 1937, as amended, are hereby revoked; and

2. The attached "Load Line Rules for Ships Making International Voyages other than Voyages between Canada and the United States of America on any Lakes or Rivers, and Voyages from any place in Canada to any other place in Canada other than on any Lakes or Rivers" are hereby made and established in substitution for the Rules hereby revoked.

His Excellency in Council is pleased further to order that the following ships be exempted, and they are hereby exempted, from the provisions of section 423A of the Canada Shipping Act, viz:

(1) Ships employed in making Home-Trade Voyages, Class IV, as defined in the Regulations respecting the Classification of Home-Trade, Inland and Minor Water Voyages, established by Order in Council P.C. 2283 of the 9th September, 1936, or voyages comparable, in the opinion of the Board of Steamship Inspection, to such voyages;

(2) Ships employed in making Minor-Waters Voyages on the sea coasts of Canada, which, in the opinion of the Board of Steamship Inspection, are comparable to Home-Trade Voyages, Class IV.

N. A. ROBERTSON,

Clerk of the Privy Council.

LOAD LINE RULES FOR SHIPS MAKING INTERNATIONAL VOYAGES OTHER THAN
VOYAGES BETWEEN CANADA AND THE UNITED STATES OF AMERICA ON
ANY LAKES OR RIVERS AND VOYAGES FROM ANY PLACE IN CANADA TO
ANY OTHER PLACE IN CANADA OTHER THAN ON ANY LAKES
OR RIVERS

Canada Shipping Act—*continued*

PART I

INTERPRETATION

1. (1) These Rules may be cited as the "General Load Line Rules".

(2) In these Rules, unless the context otherwise requires:—

"Act" means the Canada Shipping Act, 1934;

"amidships" means the middle of the length of the summer load water-line as defined in rule 40;

"Assigning Authority" means the Chairman of the Board of Steamship Inspection, Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the British Committee of the Bureau Veritas, or the American Bureau of Shipping.

"conditions of assignment" means the conditions of assignment set out in Part V of these Rules;

"flush deck ship" means a ship which has no superstructure on the freeboard deck;

"freeboard" means the distance measured vertically downwards at the side of the ship amidships from the upper edge of the deck line to the upper edge of the load line mark;

"freeboard deck" means the uppermost complete deck having permanent means of closing all openings in weather portions of the deck in accordance with rules 16 to 23, and in flush deck ships and ships with detached superstructures means the upper deck. In ships having discontinuous freeboard decks within superstructures which are not intact, or which are not fitted with Class 1 closing appliances as defined in rule 51, the lowest line of the deck below the superstructure deck shall be deemed to be the freeboard deck;

"sailing ship" includes all ships provided with sufficient sail area for navigation under sails alone, whether or not fitted with mechanical means of propulsion;

"special steamship freeboard" means a freeboard assigned under Part X of these Rules;

"steamship" includes all ships having sufficient means for mechanical propulsion, except where provided with sufficient sail area for navigation under sails alone, and for the purposes of these Rules a lighter, barge or other ship without independent means of propulsion, when towed, is deemed to be a steamship;

"superstructure" means a decked structure on the freeboard deck extending from side to side of the ship, and includes a "raised quarter deck" and a bridge of set in construction complying with the provisions of paragraph (d) of rule 60; and "superstructure deck" means the deck forming the top of a superstructure;

"surveyor" means a Steamship Inspector or, where the Assigning Authority is one other than the Chairman, a qualified surveyor appointed by such other Assigning Authority;

"tanker" includes all steamships specially constructed for the carriage of liquid cargoes in bulk;

Canada Shipping Act—continued

“tanker freeboard” means a freeboard assigned under Part IX of these Rules;

“Timber Cargo Regulations” means the Regulations for the time being in force, made by the Governor in Council under section 442 of the Act;

“timber deck cargo” means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck, but does not include a cargo of wood pulp or similar substance;

“timber freeboard” means a freeboard assigned under Part VIII of these Rules.

PART II**SURVEYS**

2. Lloyd's Register of Shipping, the British Corporation Register of Shipping and Aircraft, the British Committee of the Bureau Veritas and the American Bureau of Shipping, are hereby authorized to survey and mark ships under the provisions of these Rules, and to issue load line certificates.

3. (1) Subject to the provisions of rule 6 every application for the issue or renewal of a load line certificate shall be made by or on behalf of the owner of the ship to an Assigning Authority.

(2) Every application for the issue or renewal of a load line certificate in respect of timber freeboards shall be accompanied by such plans as the Assigning Authority may require, showing the fittings and arrangements for stowing and securing timber deck cargoes in accordance with Part VIII of these Rules and the Timber Cargo Regulations.

(3) Every application for the issue or renewal of a load line certificate in respect of tanker freeboards shall be accompanied by such plans as the Assigning Authority may require, showing the fittings and arrangements provided or to be provided for the purpose of complying with Part IX of these Rules.

(4) On every such application, there shall be paid by the owner the fee prescribed in the First Schedule to these Rules.

4. (1) The Assigning Authority shall upon receipt of the application and of the prescribed fee cause the ship to be surveyed as hereinafter provided by a surveyor.

(2) The surveyor shall survey the ship with a view to satisfying himself—

(a) that the material and workmanship of all parts of the hull of the ship are in all respects satisfactory and efficient, and that having regard to the period for which the load line certificate is to be issued or renewed, the hull is in good condition internally and externally;

(b) that the ship (i) if the keel was laid after the thirtieth day of June, 1932, complies with the conditions of assignment to the extent thereby required in the case of that ship; (ii) if the keel was laid before the 1st day of July, 1932, complies with the conditions

Canada Shipping Act—continued

of assignment in principle and also in detail so far as is reasonable and practicable having regard to the efficiency of the protection of openings, the guard-rails, the freeing ports and the means of access to the crew's quarters provided by the arrangements, fittings and appliances existing on the ship at the time of survey; and

- (c) in the case of an application for the issue or renewal of a certificate in respect of timber freeboards, that the ship also complies with the provisions of Part VIII of these Rules to the extent thereby required in the case of that ship;
- (d) in the case of an application for the issue or renewal of a certificate in respect of tanker freeboards, that the ship also complies with the provisions of Part IX of these Rules to the extent thereby required in the case of that ship;
- (e) in the case of an application for the issue or renewal of a certificate in respect of special steamship freeboards, that the ship also complies with the provisions of Part X of these Rules to the extent thereby required in the case of that ship.

(3) On the completion of the survey the surveyor shall forward to the Assigning Authority a report stating the result of the survey and containing such particulars of the ship as are required by the Assigning Authority to permit the assignment of the appropriate freeboards to the ship.

(4) On receipt of the surveyor's report the Assigning Authority, if satisfied that the ship complies with the appropriate provisions of these Rules to the extent thereby required in the case of that ship, shall assign freeboards to the ship in the case of a ship the keel of which was laid after the 30th day of June, 1932, in accordance with such of these Rules as are applicable to the ship or, in the case of a ship the keel of which was laid before the 1st day of July, 1932, in accordance with paragraph (c) of subsection (2) of section 425 of the Act, and shall furnish the owner with particulars as to the nature of the load lines and of the position in which the deck line and the load lines are to be marked on the ship.

(5) The position of each load line shall be such that the distance measured vertically from the upper edge of the deck line to the upper edge of the load line is equal to the freeboard assigned to the ship which is appropriate to that load line.

5. (1) Every application for the annual survey of a ship, under the provisions of subsection (4) of section 430 of the Act, for the purpose of seeing whether the load line certificate issued to that ship should remain in force, shall be made by or on behalf of the owner to the Assigning Authority by whom the certificate was issued.

(2) There shall be paid, in respect of such survey, the fee prescribed in the First Schedule to these Rules.

(3) The Assigning Authority shall upon receipt of the application and of the prescribed fee cause the ship to be surveyed by a surveyor. The surveyor shall survey the ship with a view to satisfying himself—

- (i) that the fittings and appliances for the protection of openings, the guard-rails, the freeing ports and the means of access to the crew's quarters have been maintained on the ship in as effective a condition as they were in when the certificate was issued; and

Canada Shipping Act—continued

- (ii) that no material alterations have taken place in the hull or superstructures of the ship which affect the positions of the load lines.
- (4) (a) Upon the completion of the survey to the satisfaction of the surveyor, he shall forward a report thereon to the Assigning Authority and endorse on the certificate a statement that the survey of the ship has been so completed. A copy of such report shall be forwarded to the Chairman.
- (b) Where a ship has had load lines assigned the Assigning Authority shall report to the Minister every case of neglect on the part of the owner to have such ship submitted for annual survey.

6. In the case where the Assigning Authority is the Chairman—

- (a) application for assignment of load lines in respect of a ship or for the renewal of a load line certificate shall be made in duplicate in such form as the Board may require and shall be addressed to the office of the Steamship Inspector in the district in which the ship will be surveyed, or, where the ship is not to be surveyed in Canada, to the Chairman;
- (b) where a ship, in respect of which application is made for the assignment of load lines, is one classed in a recognized classification society, the certificate of class, or a certified copy thereof, shall be attached to the application;
- (c) where a ship is not one classed to the highest standard of a recognized classification society, the application for the assignment of load lines shall be accompanied by such plans as the Board may require.

PART III**LOAD LINE MARKS**

7. On receiving from the Assigning Authority the particulars as to the deck line and load lines as provided in paragraph (4) of rule 4, the owner shall cause to be marked on each side of the ship, to the satisfaction of the surveyor, the appropriate marks in accordance with this Part of these Rules.

8. The disc, lines and letters described in rule 9 shall be marked in such manner as in the surveyor's opinion will make them plainly visible. They shall be painted in white or yellow on a dark ground or in black on a light ground, and shall also be carefully cut in or centre-punched on the sides of iron and steel ships, and on wood ships shall be cut into the planking for at least one-eighth of an inch.

9. A steamship shall be marked on each side with a deck line and load lines as follows:—

- (a) A deck line which shall be a horizontal line twelve inches in length and one inch in breadth marked amidships with its upper edge passing through the point where the continuation outwards of the upper surface of the freeboard deck intersects the outer surface of the shell. (See Figure 1.) Where the deck is partly sheathed amidships, the upper edge of the deck line shall pass through the point where the continuation outwards of the upper surface of the actual sheathing at amidships intersects the outer surface of the shell.

Canada Shipping Act—continued

- (b) A load line disc twelve inches in diameter intersected by a horizontal line eighteen inches in length and one inch in breadth, the upper edge of which passes through the centre of the disc. The disc shall be marked amidships below the deck line.
- (c) Horizontal lines nine inches in length and one inch in breadth which extend from, and are at right angles to, a vertical line marked 21 inches forward of the centre of the disc (See Figure 1) and which indicate the maximum depth to which the ship may be loaded in different circumstances and in different seasons. These lines are as follow—

The Summer Load Line indicated by the upper edge of the line which passes through the centre of the disc and also by the upper edge of a line marked S.

The Winter Load Line indicated by the upper edge of a line marked W.

The Winter North Atlantic Load Line indicated by the upper edge of a line marked WNA. This line shall not be marked on a steamship over 330 feet in length not being a tanker or a steamship of special type to which rule 12 applies.

The Tropical Load Line indicated by the upper edge of a line marked T.

The Fresh Water Load Line in summer indicated by the upper edge of a line marked F.

The Tropical Fresh Water Load Line indicated by the upper edge of a line marked TF.

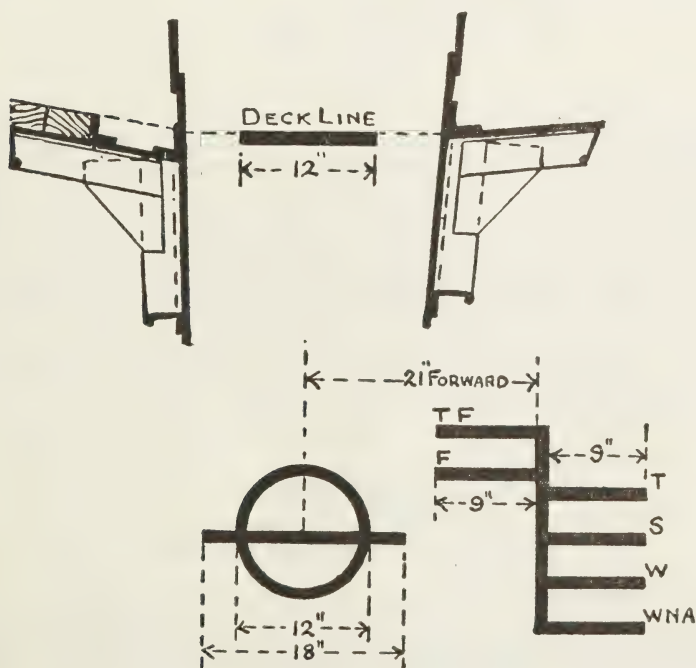


Figure 1.

Canada Shipping Act—continued

10. A sailing ship shall be marked on each side with a deck line, a load line disc and a Winter North Atlantic load line as provided in rule 9 and with a Fresh Water load line indicated by the upper edge of a line marked F. (See Figure 2.)

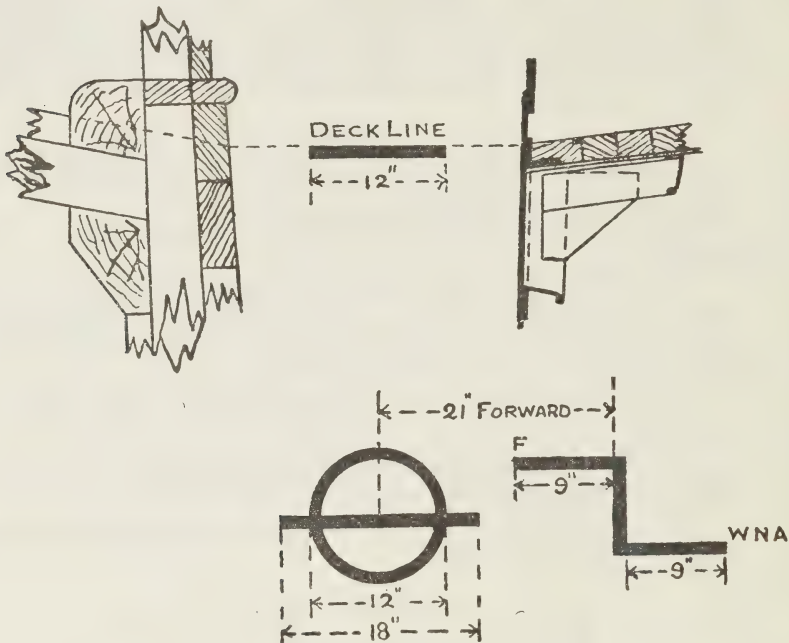


Figure 2.

11. Every steamship to which timber load lines are assigned in accordance with Part VIII of these Rules shall be marked with the following lines in addition to the lines referred to in rule 9.

Horizontal lines nine inches in length and one inch in breadth, which extend from, and are at right angles to, a vertical line marked twenty-one inches abaft the centre of the disc (see Figure 3) and which indicate the maximum timber load lines in different circumstances and in different seasons. These lines are as follow—

The Summer Timber Load Line indicated by the upper edge of a line marked LS.

The Winter Timber Load Line indicated by the upper edge of a line marked LW.

The Winter North Atlantic Timber Load Line indicated by the upper edge of a line marked LWNA.

The Tropical Timber Load Line indicated by the upper edge of a line marked LT.

The Fresh Water Timber Load Line in summer indicated by the upper edge of a line marked LF. The Fresh Water Timber Load Line in the Tropical Zone indicated by the upper edge of a line marked LTF.

Canada Shipping Act—continued

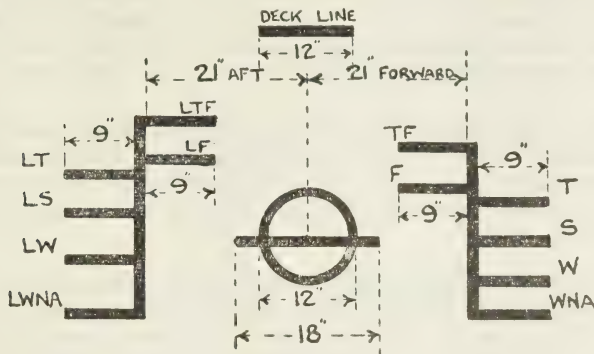


Figure 3.

12. Every tanker to which a tanker freeboard is assigned in accordance with Part IX of these Rules and every steamship of special type to which a freeboard is assigned in accordance with Part X of these Rules shall be marked with the lines referred to in rule 9 provided that the Winter North Atlantic load line shall always be marked whatever the length of the steamship.

13. For the purpose of indicating the name of the Assigning Authority by whom the freeboards have been assigned, letters measuring about $4\frac{1}{2}$ inches by 3 inches may be marked alongside the disc and above the line through the centre of the disc.

PART IV

CERTIFICATES

14. Every load line certificate in respect of freeboards assigned to a ship shall be issued by the Assigning Authority by whom those freeboards were assigned and shall be in such one of the forms set out in the second schedule to these Rules as is appropriate to the case, or in such other form substantially to the like effect as the Minister may from time to time direct.

15. On the Assigning Authority being satisfied that the ship has been marked to the surveyor's satisfaction as required by these Rules and that the prescribed fee has been paid, the certificate shall be delivered to the applicant together with a certified copy thereof.

A further certified copy of each certificate issued by an Assigning Authority other than the Chairman shall be sent to the Chairman by the Assigning Authority.

PART V

CONDITIONS OF ASSIGNMENT

Openings in Freeboard and Superstructure Decks

16. The construction and fitting of cargo and other hatchways in exposed positions on freeboard and superstructure decks shall be at least equivalent to the standards laid down in rules 17 to 23.

Canada Shipping Act—continued

17. The height of hatchway coamings on freeboard decks shall be at least 24 inches above the deck. The height of coamings on superstructure decks shall be at least 24 inches above the deck if situated within a quarter of the ship's length from the stem, and at least 18 inches if situated elsewhere.

Coamings shall be of steel, shall be substantially constructed and, where required to be 24 inches high, shall be fitted with an efficient horizontal stiffener placed not lower than 10 inches below the upper edge, and with efficient brackets or stays from the stiffener to the deck, at intervals of not more than 10 feet.

18. (a) Covers to exposed hatchways shall be efficient, and where they are made of wood, the finished thickness shall be at least $2\frac{3}{8}$ inches in association with a span of not more than 5 feet, and the ends of the wood covers are to be protected by a galvanized steel band efficiently secured. The width of each bearing surface for these hatchway covers shall be at least $2\frac{1}{2}$ inches.

(b) The provisions of paragraph (a) of this Rule requiring the ends of the wood covers to be protected by a galvanized steel band efficiently secured do not apply to wood hatch covers in use prior to the first day of January 1949, but apply in all cases where such hatch covers are renewed.

19. Where wood hatchway covers are fitted the hatchway beams and fore-and-afters shall be of the scantlings and spacing given in Table 1 hereinafter contained where coamings 24 inches high are required, and as given in Table 2 hereinafter contained where coamings 18 inches high are required. Angle bar mountings on the upper edge shall extend continuously for the full length of each beam. Wood fore-and-afters shall be steel shod at all bearing surfaces.

TABLE 1

(Coamings 24 inches in height)

Hatchway Beams and Fore-and-Afters for Ships 200 feet or more in Length*

HATCHWAY BEAMS

Breadth of Hatchway	Mounting inches	Beams with Fore-and-Afters			Beams without Fore-and-Afters	
		Spacing Centre to Centre			Spacing Centre to Centre	
		6'0"	8'0"	10'0"	4'0"	5'0"
10'0"	3 x 3 x 40A	11 x 30P	12 x 32P	14 x 34P	9 x 46BP	10 x 50BP
12'0"	3 x 3 x 40A	12 x 32P	14 x 34P	17 x 36P	11 x 50BP	12 x 50BP
14'0"	3 x 3 x 42A	14 x 34P	17 x 36P	20 x 38P	12 x 50BP	12 x 52P
16'0"	3 x 3 x 42A	16 x 36P	19 x 38P	22 x 38P	12 x 52P	14 x 34P
18'0"	4 x 3 x 44A	18 x 36P	21 x 38P	25 x 40P	14 x 34P	16 x 36P
20'0"	4 x 3 x 44A	20 x 38P	24 x 40P	28 x 42P	15 x 34P	18 x 36P
22'0"	4 x 3 x 46A	22 x 38P	26 x 42P	30 x 44P	16 x 36P	19 x 38P
24'0"	5 x 3 x 46A	23 x 40P	28 x 42P	32 x 44P	17 x 36P	20 x 38P
26'0"	5 x 3 x 48A	24 x 40P	29 x 42P	34 x 46P	18 x 36P	21 x 38P
28'0"	6 x 3 x 50A	25 x 40P	31 x 44P	36 x 48P	19 x 38P	22 x 38P
30'0"	6 x 3 x 52A	26 x 42P	32 x 44P	38 x 48P	20 x 38P	23 x 40P

TABLE 2
(Coamings 18 inches in height)

Hatchway Beams and Fore-and-Afters for Ships 200 feet or more in Length*

HATCHWAY BEAMS

Breadth of Hatchway	Mounting	Beams with Fore-and-Afters			Beams without Fore-and-Afters	
		Spacing Centre to Centre			Spacing Centre to Centre	
		6'0"	8'0"	10'0"	4'0"	5'0"
	inches	inches	inches	inches	inches	inches
10'0"	3 x 3 x .40A	9½ x .46BP	10½ x .50BP	11½ x .52BP	8 x .40BP	9 x .44BP
12'0"	3 x 3 x .40A	11 x .50BP	11 x .30P	13 x .34P	9 x .44BP	10 x .50BP
14'0"	3 x 3 x .42A	11 x .30P	13 x .32P	15 x .34P	10 x .50BP	11½ x .50BP
16'0"	3½ x 3 x .42A	12 x .32P	15 x .34P	17 x .36P	11 x .30P	11 x .30P
18'0"	4 x 3 x .44A	14 x .34P	17 x .36P	19 x .38P	11 x .30P	12 x .32P
20'0"	4 x 3 x .44A	16 x .36P	19 x .38P	21 x .38P	12 x .32P	13 x .34P
22'0"	4½ x 3 x .46A	17 x .36P	20 x .38P	23 x .40P	12½ x .32P	14 x .34P
24'0"	5 x 3½ x .46A	18 x .36P	21 x .38P	25 x .42P	13 x .34P	14½ x .34P
26'0"	5½ x 3½ x .48A	19 x .38P	22 x .38P	26 x .40P	13½ x .34P	15 x .34P
28'0"	6 x 3½ x .50A	20 x .38P	23 x .40P	27 x .42P	14 x .34P	16 x .36P
30'0"	6 x 3½ x .52A	21 x .38P	24 x .40P	28 x .42P	15 x .34P	17 x .36P

Canada Shipping Act—continued

FORE-AND-AFTERS

Length of Fore-and-Afters	Mounting		Bulb Plate		Bulb Angle			
			Centre Fore-and-Afters		Side Fore-and-Afters			
	inches		Spacing Centre to Centre		Spacing Centre to Centre			
			3'0"	4'0"	5'0"	3'0"	4'0"	5'0"
6'0"	2 1/2 x 2 1/2	36	5 x .34	5 1/2 x .34	6 x .36	5 x 3 x .34	5 1/2 x 3 x .34	6 x 3 x .36
8'0"	2 1/2 x 2 1/2	38	6 x .38	7 x .40	7 1/2 x .42	6 x 3 x .38	7 x 3 x .40	7 1/2 x 3 1/2 x .42
10'0"	2 1/2 x 2 1/2	40	7 x .44	8 x .46	9 x .50	7 x 3 x .44	8 x 3 1/2 x .46	9 x 3 3/4 x .50
Wood Centre Fore and Afters								
Wood Side Fore-and-Afters								
Spacing Centre to Centre								
6'0"	3'0"		4'0"		5'0"		3'0"	
	inches		inches		inches		inches	
	5		6		7		5 1/2	
	6		7		8		6 1/2	
8'0"	inches		inches		inches		inches	
	7		7		7		7 1/2	
	7		7		7		7 1/2	
	7		7		7		7 1/2	
10'0"	inches		inches		inches		inches	
	5 1/2		6		7		5 1/2	
	6 1/2		7		8		6 1/2	
	7 1/2		8		9		7 1/2	

A = Plain Angle. BP = Bulb Plate. P = Plate. D = Depth. B = Breadth.

Depths for hatchway beams are at the middle of the length and are measured from the top mounting to the lower edge. Depths for fore-and-afters are measured from the under side of the hatch-covers to the lower edge. Sizes for intermediate lengths and spacing are obtained by interpolation. Where plates are specified, two angles, of the size given for mountings, are to be fitted at the upper and at the lower part of the beam. Where bulb plates are specified, two angles, of the size given for mountings, are to be fitted at the upper part of the beam or fore-and-after. Where bulb angles are specified, one angle, of the size given for mountings, is to be fitted at the upper part of the section. Where the specified flanges of an angle are of different dimensions, the larger flange is to be horizontal.

*In ships not exceeding 100 feet in length, the depths of beams which are formed of plates and angles may be 60 per cent of the depths given above; the depths of beams and steel fore-and-afters formed of bulb angle or bulb plate section may be 80 per cent of the depths given above; the thickness of plates, bulb angles and bulb plates should correspond to the thickness tabulated for the reduced depths with a minimum thickness of .30 inch; the depths and breadths of wood fore-and-afters may be 80 per cent of those given in the tables for side fore-and-afters, but the centre fore-and-afters must be not less than 6 1/2 inches wide. In ships between 100 feet and 200 feet in length, the sizes of the beams and fore-and-afters are to be determined by linear interpolation.

Canada Shipping Act—continued

20. Carriers or sockets for hatchway beams and fore-and-afters shall be of steel at least $\frac{1}{2}$ inch thick, and shall have a width of bearing surface of at least 3 inches.

21. Strong cleats at least $2\frac{1}{2}$ inches wide shall be fitted at intervals of not more than 2 feet from centre to centre; the end cleats shall be placed not more than 6 inches from each corner of the hatchway; and, in the case of a ship whose keel is laid after the first day of January 1949, the cleats are to be of a pattern approved by the Assigning Authority and are to be set to fit the taper of the wedges.

22. (a) Battens and wedges shall be efficient and in good condition.

(b) In the case of a ship whose keel is laid after the first day of January 1949, wedges are to be made from tough wood cut to a taper of 1 in 6 and are to be not less than $\frac{1}{2}$ inch thick at the toe.

(c) At least two tarpaulins in good condition, thoroughly water-proofed and of ample strength, shall be provided for each hatchway in an exposed position on freeboard and superstructure decks. The material of the tarpaulins shall be guaranteed free from jute, and the minimum weight of the material, before treatment, shall be 19 ounces per square yard if to be tarred, 18 ounces per square yard if to be chemically dressed or 16 ounces per square yard for black oil dressing.

23. (a) Where coamings are required to be 24 inches high, steel bars or other equivalent means shall be provided for efficiently and independently securing each section of hatchway covers after the tarpaulins are battened down.

(b) At all other hatchways in exposed positions on freeboard and superstructure decks, ring bolts or other fittings for lashings shall be provided.

(c) Where hatchway covers extend over intermediate supports, steel bars or their equivalent shall be fitted at each end of each section of the covers.

(d) The provisions of paragraphs (a) and (c) of this Rule apply to a ship whose keel is laid after the first day of January, 1949; and such provisions shall also apply to any other ship if, in the opinion of the Assigning Authority, compliance with such provisions is reasonable and practicable, provided that where full compliance is not considered to be reasonable and practicable, efficient means for securing the hatchway covers after the tarpaulins are battened down shall be provided in the form of fittings for special lashings to the satisfaction of the Assigning Authority.

24. Cargo, coaling and other hatchways in the freeboard deck within superstructures which are fitted with closing appliances less efficient than Class 1 but not less efficient than Class 2 shall have coamings at least 9 inches in height and closing arrangements as effective as those required for exposed cargo hatchways whose coamings are 18 inches high.

Where the closing appliances are less efficient than Class 2, the hatchways shall have coamings at least 18 inches in height, and shall have fittings and closing arrangements as effective as those required for exposed cargo hatchways.

25. Machinery space openings in exposed positions on freeboard and raised quarter decks shall be properly framed and efficiently enclosed by steel casings of ample strength. Doors in such casings shall be of steel.

Canada Shipping Act—continued

efficiently stiffened, permanently attached, and capable of being closed and secured from both sides. The sills of openings shall be at least 24 inches above the freeboard deck and at least 18 inches above the raised quarter deck.

Fiddley, funnel and ventilator coamings shall be as high above the deck as is reasonable and practicable. Fiddley openings shall have strong steel covers permanently attached in their proper positions.

26. Machinery space openings in exposed positions on superstructure decks other than raised quarter decks shall be properly framed and efficiently enclosed by strong steel casings. Doors in such casings shall be strongly constructed, permanently attached, and capable of being closed and secured from both sides. The sills of the openings shall be at least 15 inches above superstructure decks.

Fiddley, funnel and ventilator coamings shall be as high above the deck as is reasonable and practicable. Fiddley openings shall have strong steel covers permanently attached in their proper positions.

27. Machinery space openings in the freeboard deck within superstructures which are fitted with closing appliances less efficient than Class 1 shall be properly framed and efficiently enclosed by steel casings. Doors in such casings shall be strongly constructed, permanently attached and capable of being securely closed. The sills of the openings shall be at least 9 inches above the deck where the superstructures are closed by Class 2 closing appliances, and at least 15 inches above the deck where the closing appliances are less efficient than Class 2.

28. (a) Flush bunker scuttles may only be fitted in superstructure decks, except in the case of small ships in special trades when they may be fitted in other positions by permission of the Assigning Authority.

(b) Such scuttles shall be of iron or steel, of substantial construction, with screw or bayonet joints. Where a scuttle is not secured by hinges, a permanent chain attachment shall be provided.

29. Companionways in exposed positions on freeboard decks and on decks of enclosed superstructures shall be of substantial construction. The sills of the doorways shall be of the heights specified for hatchway coamings in rules 17 and 24. The doors shall be strongly constructed and capable of being closed and secured from both sides. Where the companionway is situated within a quarter of the ship's length from the stem, it shall be of steel and riveted to the deck plating.

30. (a) Ventilators in exposed positions on freeboard and superstructure decks to spaces below freeboard decks or decks of superstructures which are intact or fitted with Class 1 closing appliances shall have coamings of steel, substantially constructed, and efficiently connected to the deck by rivets spaced four diameters apart centre to centre, or by equally effective means. The deck plating at the base of the coaming shall be efficiently stiffened between the deck beams. The ventilator openings shall be provided with efficient closing arrangements.

(b) Where such ventilators are situated on the freeboard deck, or on the superstructure deck within a quarter of the ship's length from the stem, and the closing arrangements of the ventilators are of a temporary character, the coamings shall be at least 36 inches in height; in other exposed positions on the superstructure deck they are to be at least 30 inches in height. Where the coaming of any ventilator exceeds 36 inches in height, it shall be specially supported and secured.

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31. Where the air pipes to ballast and other tanks extend above freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the opening shall be at least 36 inches in wells on freeboard decks, 30 inches on raised quarter decks, and 18 inches on other superstructure decks. Efficient means shall be provided for closing the openings of the air pipes.

Openings in the Sides of Ships

32. Openings in the sides of ships such as gangways, cargo ports, coaling ports, rubbish shoots or ash shoots which are below the freeboard deck shall be fitted with watertight doors or covers which, with their securing appliances, shall be of sufficient strength.

33. (a) Scuppers and sanitary discharge pipes led through the ship's sides from spaces below the freeboard deck shall be fitted with efficient and accessible means for preventing water from passing inboard. Each separate discharge shall have either an automatic non-return valve with a positive means of closing it from a position above the freeboard deck, or two automatic non-return valves without positive means of closing, provided the upper valve is situated so that it is always accessible for examination under service conditions. The positive action valve shall be readily accessible and is to be provided with means for showing whether the valve is open or closed. Cast iron shall not be accepted for such valves where attached to the sides of the ship.

(b) The foregoing provisions of this rule shall apply to discharges from spaces within enclosed superstructures if and to the extent that the Assigning Authority considers necessary, having regard to the type and location of the inboard ends of such openings.

(c) Where scuppers are fitted in superstructures not fitted with Class 1 closing appliances they shall have efficient means for preventing the accidental admission of water below the freeboard deck.

(d) In the case of a ship whose keel is laid after the first day of January 1949, cast iron shall not be used for valves and discharges led through the ship's sides below the freeboard deck or through the sides of enclosed superstructures.

34. Side scuttles to spaces below the freeboard deck, or to spaces below the superstructure deck of superstructures closed by Class 1 or Class 2 closing appliances, shall be fitted with efficient inside deadlights permanently attached in their proper positions so that they can be effectively closed and secured watertight.

Where, however, such spaces in superstructures are appropriated to passengers, other than steerage passengers, or to crew, the side scuttles may have portable deadlights stowed adjacent to the side scuttles, provided they are readily accessible at all times on service.

The side scuttles and deadlights shall be of substantial construction and of types approved by the Board.

Miscellaneous Provisions

35. Efficient guard rails or bulwarks shall be fitted on all exposed portions of freeboard and superstructure decks.

36. (a) Where bulwarks on the weather portions of freeboard or superstructure decks form "wells", ample provision shall be made for rapidly freeing the decks of water and for draining them. The minimum freeing

Canada Shipping Act—continued

port area on each side of the ship for each "well" on freeboard decks and on raised quarter decks shall be that given by the following scale; the minimum area for each well on any superstructure deck other than a raised quarter deck shall be one-half the area given by that scale. Where the length of the well exceeds seven-tenths of the length of the ship, as defined in rule 40, the Assigning Authority may modify that scale. In ships with less than the standard sheer the freeing port area shall be increased as required by the Assigning Authority.

SCALE OF FREEING PORT AREA

Length of bulwarks in "well" in feet	Freeing port area on each side in square feet
15	8.0
20	8.5
25	9.0
30	9.5
35	10.0
40	10.5
45	11.0
50	11.5
55	12.0
60	12.5
65	13.0
Above 65	1 square foot for each additional 5 feet length of bulwarks.

(b) The lower edges of the freeing ports shall be as near the deck as practicable and as a general rule shall not be higher than the upper edge of the gunwale bar. Two-thirds of the freeing port area required shall be provided in the midship half of the well.

(c) All such openings in the bulwarks shall be protected by rails or bars spaced about 9 inches apart. If shutters are fitted to freeing ports, ample clearance shall be provided to prevent jamming. Hinges shall have brass pins.

37. (a) Gangways, lifelines or other satisfactory means shall be provided for the protection of the crew in getting to and from their quarters.

(b) The strength of houses for the accommodation of crew on flush deck steamships shall be equivalent to that required for superstructure bulkheads.

38. Notwithstanding anything in the foregoing provisions of this Part of these Rules, the Assigning Authority may, in any exceptional case, allow departures from the said provisions on condition that the freeboards computed for the ship are increased to such extent as will, in the opinion of the Board, secure that the protection afforded to the ship and crew is not less effective than it would be if the ship fully complied with the said provisions and there had been no increase of freeboards.

PART VI**COMPUTATION OF FREEBOARDS FOR STEAMSHIPS**

39. Subject to the provisions of paragraph (c) of subsection (2) of section 425 of the Act and subject to the provisions of rule 38 of these Rules, the freeboards for steamships other than tankers or steamships of special type to which freeboards are assigned under Parts IX and X of these Rules, shall be computed in accordance with this Part of these Rules.

Canada Shipping Act—continued

40. The length (L) to be used with these Rules is the length in feet on the summer load waterline from the foreside of the stem to the afterside of the rudder post. Where there is no rudder post, the length is measured from the foreside of the stem to the axis of the rudder stock. For ships with cruiser sterns, the length shall be taken as 96 per cent of the total length on the designed summer load waterline or as the length from the foreside of the stem to the axis of the rudder stock if that be the greater.

41. The breadth (B) to be used with these Rules is the maximum breadth in feet amidships to the moulded line of the frame in iron or steel ships, and to the outside of the planking in wood or composite ships.

42. The moulded depth is the vertical distance in feet, measured amidships, from the top of the keel to the top of the freeboard deck beam at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the depth is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

43. The depth (D) to be used with these Rules is the moulded depth plus the thickness of stringer plate, or plus $\frac{T(L-S)}{L}$ if that be greater,

where—

T is the mean thickness of the exposed deck clear of deck openings, and

S is the total length of superstructures as defined in rule 48.

Where the topsides are of unusual form, D is the depth of a midship section having vertical topsides, standard round of beam and area of topside section equal to that in the actual midship section. Where there is a step or break in the topsides (e.g., as in the Turret Deck ship) 70 per cent of the area above the step or break is included in the area used to determine the equivalent section.

In a ship without an enclosed superstructure covering at least $\cdot 6L$ amidships, without a complete trunk or without a combination of intact partial superstructures and trunk extending all fore and aft, where D is less

than $\frac{L}{15}$, the depth used with the table set out in rule 76 shall not be taken as

less than $\frac{L}{15}$.

44. The coefficient of fineness (c) to be used with these Rules is given by the formula:—

$$c = \frac{35\Delta}{L \cdot B \cdot d_1},$$

where Δ is the ship's moulded displacement (excluding bossing) in salt water in tons of 2,240 pounds each, at a mean moulded draught d_1 , which is 85 per cent of the moulded depth.

The coefficient (c) shall not be taken as less than $\cdot 68$.

Strength

45. (a) The Assigning Authority shall be satisfied with the structural strength of any ship before assigning to it a freeboard.

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Ships which comply with the highest standard of the rules of a classification society recognized for this purpose by the Minister, shall be regarded as having sufficient strength for the minimum freeboards allowed under these Rules.

(b) Ships which do not comply with the highest standard of the rules of a classification society recognized as aforesaid shall be assigned such increased freeboards as shall be determined by the Assigning Authority, having regard to the extent to which the ship complies with the following strength moduli:—

- (i) Material—The strength moduli are based on the assumption that the structure is built of mild steel, manufactured by the open hearth process (acid or basic), and having a tensile strength of 26 to 32 tons of 2,240 pounds each per square inch, and an elongation of at least 16 per cent on a length of 8 inches.

Strength Deck—The strength deck is the uppermost deck which is incorporated into and forms an integral part of the longitudinal girder within the half-length amidships.

Depth to Strength Deck (D_s)—The depth to strength deck is the vertical distance in feet amidships from the top of the keel to the top of the strength deck beam at side.

Draught (d)—The draught is the vertical distance in feet amidships from the top of the keel to the centre of the disc.

- (ii) Longitudinal Modulus—The longitudinal modulus $\frac{I}{y}$ is the moment of inertia I of the midship section about the neutral axis divided by the distance y measured from the neutral axis to the top of the strength deck beam at side, calculated in way of openings but without deductions for rivet holes. Areas are measured in square inches and distances in feet.

Below the strength deck, all continuous longitudinal members other than such parts of the under deck girders as are required entirely for supporting purposes are included. Above the strength deck, the gunwale angle bar and the extension of the sheerstrake are the only members included.

The required longitudinal modulus for effective material is expressed by the formula $f.d.B.$, where f is the factor obtained from the following table:—

L.	f.	L.	f.
100	1.80	360	9.40
120	2.00	380	10.30
140	2.35	400	11.20
160	2.70	420	12.15
180	3.15	440	13.10
200	3.60	460	14.15
220	4.20	480	15.15
240	4.80	500	16.25
260	5.45	520	17.35
280	6.20	540	18.45
300	6.95	560	19.60
320	7.70	580	20.80
340	8.55	600	22.00

For intermediate lengths, the value of f is determined by interpolation.

Canada Shipping Act—continued

This formula applies where L does not exceed 600 feet, B is between $\frac{L}{10} + 5$ and $\frac{L}{10} + 20$, both inclusive, and $\frac{L}{D_s}$ is between 10 and 13.5, both inclusive.

- (iii) Frame—For the purpose of the frame modulus, the frame is regarded as composed of a frame angle and a reverse angle each of the same size and thickness.

Frame Modulus—The modulus $\frac{I}{y}$ of the midship frame below the lowest tier of beams is the moment of inertia I of the frame section about the neutral axis divided by the distance y measured from the neutral axis to the extremity of the frame section, calculated without deduction for rivet and bolt holes. The modulus is measured in inch units.

The required frame modulus is expressed by the formula

$$\frac{s (d - t) (f_1 + f_2),}{1,000}$$

where s is the frame spacing in inches;

t is the vertical distance in feet measured at amidships from the top of the keel to a point midway between the top of the inner bottom at side and the top of the heel bracket (see Figure 4); where there is no double bottom, t is measured to a point midway between the top of the floor at centre and the top of the floor at side;

f_1 is a coefficient depending on H , which, in ships fitted with double bottoms, is the vertical distance in feet from the middle of the beam bracket of the lowest tier of beams at side to a point midway between the top of the inner bottom at side and the top of the heel bracket (see Figure 4). Where there is no double bottom, H is measured to a point midway between the top of the floor at centre and the top of the floor at side. Where the frame obtains additional strength from the form of the ship, due allowance is made in the value of f_1 ;

f_2 is a coefficient depending on K , which is the vertical distance in feet from the top of the lowest tier of beams at side to a point 7 feet 6 inches above the freeboard deck at side, or, if there is a superstructure, to a point 12 feet 6 inches above the freeboard deck at side (see Figure 4). The values of f_1 and f_2 are obtained from the following tables:—

H in feet.	0	7	9	11	13	15	17	19	21	23	25
f_1	9	11	12.5	15	19	24	29.5	36	43	51	59

K in feet.....	0	5	10	15	20	25	30	35	40
f_2	0	0.5	1.0	2.0	3.0	4.5	6.5	9.0	12.0

Intermediate values are obtained by interpolation.

This formula applies where D is between 15 feet and 60 feet, both inclusive, B is between $\frac{L}{10} + 5$ and $\frac{L}{10} + 20$, both inclusive, $\frac{L}{D_s}$ is between 10 and 13.5, both inclusive; and the horizontal distance from the outside of the frame to the centre of the first row of pillars does not exceed 20 feet.

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In single deck ships of ordinary form, where H does not exceed 18 feet, the frame modulus determined by the preceding method is multiplied by the factor f_3 where

$$f_3 = .50 + .05 (H - 8).$$

Where the horizontal distance from the outside of the frame to the centre of the first row of pillars exceeds 20 feet, sufficient additional strength shall be provided to the satisfaction of the Assigning Authority.

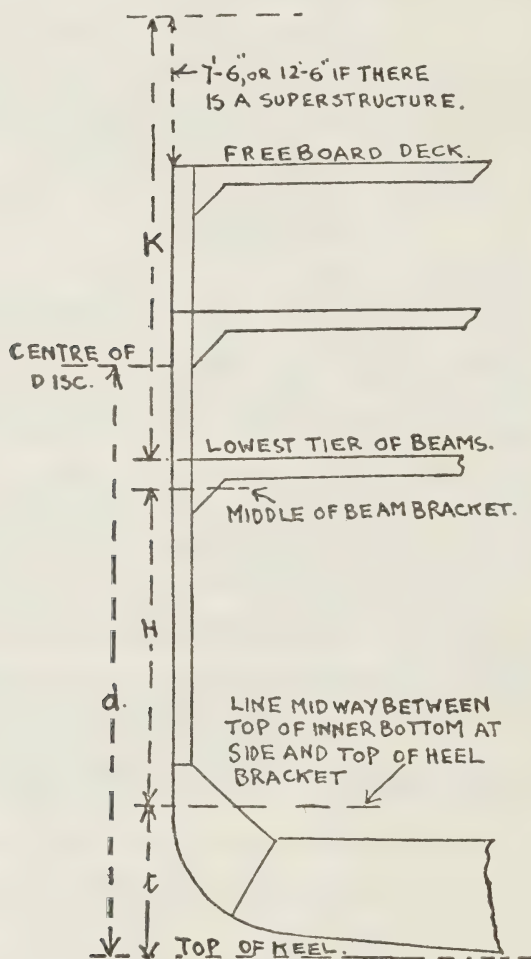


Figure 4.

Superstructures

46. The height of a superstructure is the least vertical height measured from the top of the superstructure deck to the top of the freeboard deck beams minus the difference between the moulded depth and D as defined in rules 42 and 43.

47. The standard height of a raised quarter deck is 3 feet for ships up to and including 100 feet in length, 4 feet for ships 250 feet in length and 6 feet for ships 400 feet in length and above. The standard height of any

Canada Shipping Act—continued

other superstructure or of a trunk is 6 feet for ships up to and including 250 feet in length and 7 feet 6 inches for ships 400 feet in length and above. The standard height at intermediate lengths is obtained by interpolation.

48. The length of a superstructure (S) is the mean covered length of the parts of the superstructure which extend to the sides of the ship and lie within lines drawn perpendicular to the extremities of the summer load waterline, as defined in rule 40.

49. A detached superstructure is regarded as enclosed only where—

- (i) the enclosing bulkheads are of efficient construction as required by rule 50;
- (ii) the access openings in these bulkheads are fitted with Class 1 or Class 2 closing appliances (as defined in rules 51 and 52);
- (iii) all other openings in sides or ends of the superstructure are fitted with efficient weathertight means of closing; and
- (iv) independent means of access to crew, machinery, bunker and other working spaces within bridges and poops are at all times available when the bulkhead openings are closed.

50. Bulkheads at exposed ends of poops, bridges and forecastles are deemed to be of efficient construction where the Assigning Authority is satisfied that, in the circumstances, they are equivalent to the following standard for ships with minimum freeboards, under which standard the stiffeners and plating are of the scantlings given in the table hereinafter contained, the stiffeners are spaced 30 inches apart, the stiffeners on poop and bridge front bulkheads have efficient end connections, and those on after bulkheads of bridges and forecastles extend for the whole distance between the margin angles of the bulkheads.

EXPPOSED BULKHEADS OF SUPERSTRUCTURES OF STANDARD HEIGHT

Bridge Front Bulkheads. Unprotected bulkheads of poops .4L or more in length		Bulkheads of Poops partially protected or less in length than .4L		After Bulkheads of Bridges and Forecastles	
Length of ship	Bulb angle stiffeners	Length of ship	Plain angle stiffeners	Length of ship	Plain angle stiffeners
feet	inches	feet	inches	feet	inches
Under 160	5½ x 3 x .30	Under 150	3 x 2½ x .30	Under 150	2½ x 2½ x .26
160	6 x 3 x .32	150	3½ x 2½ x .32	150	3 x 2½ x .28
200	6½ x 3 x .34	200	4 x 3 x .34	250	3½ x 3 x .30
240	7 x 3 x .36	250	4½ x 3 x .36	350	4 x 3 x .32
280	7½ x 3 x .38	300	5 x 3 x .38		
320	8 x 3 x .40	350	5½ x 3 x .42		
360	8½ x 3 x .42	400	6 x 3 x .44		
400	9 x 3 x .44	450	6½ x 3½ x .46		
440	9½ x 3½ x .46	500	7 x 3½ x .48		
480	10 x 3½ x .48	550	7 x 3½ x .50		
520	10½ x 3½ x .50				
560	11 x 3½ x .52				

Length of ship	Bulkhead plating	Length of ship	Bulkhead plating	Length of ship	Bulkhead plating
feet	inch	feet	inch	feet	inch
200		160		160	
and under	.3	and under	.24	and under	.20
380		400		400	
and above	.44	and above	.38	and above	.30

For ships intermediate in length the thicknesses of bulkhead plating are obtained by interpolation.

Canada Shipping Act—continued*Appliances for Closing Access Openings in Bulkheads at Ends of Detached Superstructures*

51. Class 1 closing appliances shall be closing appliances which comply with the following conditions:—They shall be constructed of iron or steel, they shall in all cases be permanently and strongly attached to the bulkhead, they shall be framed, stiffened and fitted so that the whole structure is of equivalent strength to the unpierced bulkhead, and they shall be weather-tight when closed. The means for securing these appliances shall be permanently attached to the bulkhead or to the appliances and the latter shall be so arranged that they can be closed and secured from both sides of the bulkhead or from the deck above. The sills of the access openings shall be at least 15 inches above the deck.

52. The following closing appliances shall be Class 2 closing appliances:—

- (i) Strongly framed hard wood hinged doors, which are not more than 30 inches wide or less than 2 inches thick;
- (ii) Shifting boards fitted for the full height of the opening in channels riveted to the bulkheads, the shifting boards being at least 2 inches thick where the width of opening is 30 inches or less, and increased in thickness at the rate of 1 inch for each additional 15 inches of width; or
- (iii) Portable plates of equal efficiency with the appliances specified in (i) or (ii).

Temporary Appliances for Closing Openings in Superstructure Decks

53. Temporary closing appliances for middle line openings in the deck of an enclosed superstructure shall be regarded as efficient if they consist of—

- (i) a steel coaming not less than 9 inches in height efficiently riveted to the deck;
- (ii) hatchway covers as required by rule 18, secured by hemp lashings; and
- (iii) hatchway supports as required by rules 19 and 20 and Table 1 or 2 in rule 19.

Effective Length of Detached Superstructures

54. For the purpose of determining the effective length of detached superstructures rules 55 to 60 shall apply.

55. (a) Where exposed bulkheads at the ends of poops, bridges and forecastles are not of efficient construction (see rule 50) they shall be treated as non-existent.

(b) Where in the side plating of a superstructure there is an opening not provided with permanent means of closing, the part of the superstructure in way of the opening shall be regarded as having no effective length.

(c) Where the height of a superstructure is less than the standard, its length shall be reduced in the ratio of the actual to the standard height. Where the height exceeds the standard, no increase shall be made in the length of the superstructure.

56. (a) Where, at the end of a poop, there is an efficient bulkhead and the access openings are fitted with Class 1 closing appliances, the length of the poop to the bulkhead shall be the effective length.

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(b) Where the access openings in an efficient bulkhead are fitted with Class 2 closing appliances and the length of the poop to the bulkhead is $\cdot 5L$ or less, 100 per cent of that length shall be the effective length; where the length is $\cdot 7L$ or more, 90 per cent of that length shall be the effective length; where the length is between $\cdot 5L$ and $\cdot 7L$ an intermediate percentage of that length shall be the effective length; but where in any of these cases an allowance is given for an efficient adjacent trunk, (see rule 60), only 90 per cent of the length to the bulkhead shall be the effective length.

(c) 50 per cent of the length of an open poop or of an open extension of a poop beyond an efficient bulkhead shall be the effective length of the open poop or of the extension, as the case may be.

57. Where, at the end of a raised quarter deck, there is an efficient intact bulkhead, the length of the raised quarter deck to the bulkhead shall be the effective length. Where the bulkhead is not intact, the superstructure shall be regarded as a poop of less than standard height.

58. (a) Where there is an efficient bulkhead at each end of a bridge and the access openings in the bulkheads are fitted with Class 1 closing appliances, the length between the bulkheads shall be the effective length.

(b) Where the access openings in the forward bulkhead of a bridge are fitted with Class 1 closing appliances and the access openings in the after bulkhead with Class 2 closing appliances, the length between the bulkheads shall be the effective length; but where an allowance is given for an efficient trunk adjacent to the after bulkhead (see rule 60), 90 per cent of the length shall be the effective length. Where the access openings in both bulkheads are fitted with Class 2 closing appliances, 90 per cent of the length between the bulkheads shall be the effective length. Where the access openings in the forward bulkhead are fitted with Class 1 or Class 2 closing appliances and the access openings in the after bulkhead have no closing appliances, 75 per cent of the length between the bulkheads shall be the effective length. Where the access openings in both bulkheads have no closing appliances, 50 per cent of the length shall be the effective length.

(c) 75 per cent of the length of an open extension beyond the after bulkhead of a bridge, and 50 per cent of that beyond the forward bulkhead, shall be the effective length.

59. (a) Where, at the end of a forecastle, there is an efficient bulkhead and the access openings are fitted with Class 1 or Class 2 closing appliances, the length of the forecastle to the bulkhead shall be the effective length. Where no closing appliances are fitted and the sheer forward of amidships is not less than the standard sheer, 100 per cent of the length of the fore-castle forward of $\cdot 1L$ from the forward perpendicular shall be the effective length.

(b) Where the sheer forward is half the standard sheer or less, 50 per cent of the length of the forecastle shall be the effective length; and where the sheer forward is intermediate between the standard and half the standard sheer, an intermediate percentage of that length shall be the effective length.

(c) 50 per cent of the length of an open extension beyond the bulkhead or beyond $\cdot 1L$ from the forward perpendicular shall be the effective length.

60. (a) A trunk or similar structure which does not extend to the sides of the ship shall be regarded as efficient provided that—

(i) the trunk is at least as strong as a superstructure;

Canada Shipping Act—continued

- (ii) the hatchways are in the trunk deck and comply with the requirements of rules 16 to 23, and the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness;
 - (iii) a permanent working platform fore and aft fitted with guard rails is provided by the trunk deck or by detached trunks connected to other superstructures by efficient permanent gangways;
 - (iv) ventilators are protected by the trunk, by watertight covers or by equivalent means;
 - (v) open rails are fitted on the weather portions of the freeboard deck in way of the trunk for at least half their length;
 - (vi) the machinery casings are protected by the trunk, by a superstructure of standard height, or by a deck house of the same height and of equivalent strength.
- (b) Where access openings in poop and bridge bulkheads are fitted with Class 1 closing appliances, 100 per cent of the length of an efficient trunk reduced in the ratio of its mean breadth to B (as defined in rule 41) shall be added to the effective length of the superstructures. Where the access openings in these bulkheads are not fitted with Class 1 closing appliances, 90 per cent of the length reduced as above shall be added.
- (c) Where the height of the trunk is less than the standard height as determined in accordance with rule 47 the addition referred to in paragraph (b) shall be reduced in the ratio of the actual to the standard height; where the height of hatchway coamings on the trunk deck is less than the height of coamings as required by rule 17, a reduction from the actual height of trunk shall be made corresponding to the difference between the actual height of the coamings and the height required by rule 17.
- (d) A bridge structure which is 'set in' shall be regarded as efficient provided that—
- (i) the transverse amount of 'set in' on each side of the ship at any point shall not exceed 12 inches inside the full breadth of the ship at that point;
 - (ii) the longitudinal extent of the 'set in' shall not exceed the midship four-tenths of the length of the ship as defined in rule 40 of these Rules;
 - (iii) the sides of the modified bridge shall be at least of equivalent strength to the normal bridge side construction and proper provisions shall be made for the maintenance and continuity of the strength of the ship;
 - (iv) the end bulkheads and closing appliances shall conform to the requirements of these Rules;
 - (v) the length of the bridge to be allowed in the assessment of the total length of superstructures shall be the effective length in accordance with rule 58 of these Rules multiplied by the factor $\frac{b}{B}$ where
 b is the breadth of the modified superstructure at midships
 B is the full breadth of the ship as defined in rule 41 of these Rules.

Effective Length of Enclosed Superstructures with Middle Line Openings

61. Where there is an enclosed superstructure with one or more middle line openings in the deck not provided with permanent means of closing in accordance with rules 16 to 23, the effective length of the superstructure is determined as follows:—

Canada Shipping Act—continued

- (i) Where efficient temporary closing appliances are not provided for the middle line deck openings in accordance with rule 53, or the breadth of opening is 80 per cent or more of the breadth (B_1) of the superstructure deck at the middle of the opening, the ship shall be regarded as having an open well in way of each opening, and freeing ports shall be provided in way of this well. The effective length of superstructure between openings shall be ascertained by applying rules 56, 58 and 59.
- (ii) Where efficient temporary closing appliances as defined in rule 53 are provided for middle line deck openings and the breadth of opening is less than $\cdot 8 B_1$, the effective length of superstructure between openings shall be ascertained by applying rules 56, 58 and 59, except that where access openings in 'tween deck bulkheads are closed by Class 2 closing appliances, they shall be regarded as being closed by Class 1 closing appliances. The total effective length shall be obtained by adding to the length thus determined the difference between that length and the length of the ship, modified in the ratio of—

$$\frac{B_1 - b}{B_1} \text{ where } b = \text{breadth of deck opening;}$$

where $\frac{B_1 - b}{B_1}$ is greater than $\cdot 5$ it is taken as $\cdot 5$.

Deductions for Superstructures

62. Where the effective length of superstructures is 1·0L, the deduction from the freeboard shall be 14 inches at 80 feet length of ship, 34 inches at 280 feet length, and 42 inches at 400 feet length and above; deductions at intermediate lengths shall be obtained by interpolation. Where the total effective length of superstructure is less than 1·0L, the deduction shall be a percentage obtained from the following table:—

Superstructures	Total effective length of superstructures (E)											Line
	0	·1L	·2L	·3L	·4L	·5L	·6L	·7L	·8L	·9L	1·0L	
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	
All types with forecastle and without detached bridge...	0	5	10	15	23·5	32	46	63	75·3	87·7	100	A
*All types with forecastle and detached bridge.....	0	6·3	12·7	19	27·5	36	46	63	75·3	87·7	100	B

*Where the effective length of a detached bridge is less than $\cdot 2L$ the percentages are obtained by interpolation between lines B and A.

Where no forecastle is fitted the above percentages are reduced by 5.

Percentages for intermediate lengths of superstructures are obtained by interpolation.

Sheer

63. The sheer shall be measured from the deck at side to a line of reference drawn parallel to the keel through the sheer line at amidships.

In flush deck ships and in ships with detached superstructures the sheer shall be measured at the freeboard deck.

Canada Shipping Act—continued

In ships with topsides of unusual form in which there is a step or break in the topsides, the sheer shall be considered in relation to the equivalent depth amidships determined in accordance with rule 43.

In ships with a superstructure of standard height which extends over the whole length of the freeboard deck, the sheer shall be measured at the superstructure deck; where the height exceeds the standard, the sheer may be considered in relation to the standard height.

Where a superstructure is intact or access openings in its enclosing bulkheads are fitted with Class 1 closing appliances, and the superstructure deck has at least the same sheer as the exposed freeboard deck, the sheer of the enclosed portion of the freeboard deck shall not be taken into account.

64. The ordinates (in inches) of the standard sheer profile are given in the following table, where L is the number of feet in the length of the ship:—

Station	Ordinate	Factor
A.P.	$\cdot 1 L + 10$	1
$\frac{1}{6} L$ from A.P.	$\cdot 0445 L + 4\cdot 45$	4
$\frac{1}{3} L$ from A.P.	$\cdot 011 L + 1\cdot 1$	2
Amidships	0	4
$\frac{1}{3} L$ from F.P.	$\cdot 022 L + 2\cdot 2$	2
$\frac{1}{6} L$ from F.P.	$\cdot 089 L + 8\cdot 9$	4
F.P.	$\cdot 2 L + 20$	1

A.P. = After end of summer load waterline.

F.P. = Fore end of summer load waterline.

65. (a) Where the sheer profile differs from the standard, the seven ordinates of each profile shall be multiplied by the appropriate factors given in the table of ordinates. The difference between the sums of the respective products, divided by 18, measures the deficiency or excess of sheer.

(b) Where the after half of the sheer profile is greater than the standard and the forward half is less than the standard, no credit shall be allowed for the part in excess.

(c) Where the forward half of the sheer profile exceeds the standard, and the after portion of the sheer profile is not less than 75 per cent of the standard, credit shall be allowed for the part in excess; where the after part is less than 50 per cent of the standard no credit shall be given for the excess sheer forward. Where the after sheer is between 50 per cent and 75 per cent of the standard, an intermediate allowance may be granted for excess sheer forward.

66. The correction for variations from the standard sheer shall be the deficiency or excess of sheer determined in accordance with rule 65, multiplied by $\cdot 75 - \frac{S}{2L}$, where S is the total length of superstructure, as defined in rule 48.

67. Where the sheer is less than the standard, the correction for deficiency in sheer, determined in accordance with rule 66, shall be added to the freeboard.

68. In flush deck ships and in ships where an enclosed superstructure covers $\cdot 1L$ before and $\cdot 1L$ abaft amidships, the correction for excess of sheer, determined in accordance with rule 66, shall be deducted from the freeboard; in ships with detached superstructures where no enclosed super-

Canada Shipping Act—continued

structure covers amidships, no deduction shall be made from the freeboard; where an enclosed superstructure covers less than $\cdot 1L$ before and $\cdot 1L$ abaft amidships, the deduction shall be obtained by interpolation. The maximum deduction for excess sheer shall be $1\frac{1}{2}$ inches at 100 feet length of ship and shall increase at the rate of $1\frac{1}{2}$ inches for each additional 100 feet in the length of the ship.

Round of Beam

69. The standard round of beam of the freeboard deck is one-fiftieth of the breadth of the ship.

70. Where the round of beam of the freeboard deck is greater or less than the standard, the freeboard shall be decreased or increased respectively by one-fourth of the difference between the actual and the standard round of beam, multiplied by the proportion of the length of the freeboard deck not covered by enclosed superstructures. Twice the standard round of beam is the maximum for which allowance may be given.

Minimum Freeboards

71. The minimum freeboard in Summer shall be the freeboard derived from the table set out in rule 76, after correction for departures from the standards and after deduction for superstructures in accordance with these Rules, so however that if the freeboard, calculated in accordance with these Rules but before the correction required by Note (v) appended to the table is made, be less than two inches, two inches shall be substituted therefor.

72. The minimum freeboard in the Tropical Zone shall be the freeboard obtained by a deduction from the Summer freeboard of $\frac{1}{4}$ inch per foot of Summer draught measured from the top of the keel to the centre of the load line disc, so however that if the freeboard, calculated in accordance with these Rules but before the correction required by Note (v) appended to the table set out in rule 76 is made, be less than two inches, two inches shall be substituted therefor.

73. The minimum freeboard in Winter shall be the freeboard obtained by an addition to the Summer freeboard of $\frac{1}{4}$ inch per foot of Summer draught, measured from the top of the keel to the centre of the load line disc.

74. The minimum Winter North Atlantic freeboard for steamships not exceeding 330 feet in length shall be the Winter freeboard plus two inches; for steamships over 330 feet in length the minimum Winter North Atlantic freeboard shall be the Winter freeboard.

75. The minimum freeboard in fresh water of unit density shall be the freeboard obtained by deducting from the minimum freeboard in salt water

$\frac{\Delta}{40T}$ inches, where

Δ =displacement in salt water in tons of 2,240 pounds each at the Summer load waterline, and

T =tons of 2,240 pounds each per inch immersion in salt water at the Summer load waterline.

Where the displacement at the Summer load waterline cannot be certified, the deduction shall be $\frac{1}{4}$ inch per foot of Summer draught measured from the top of the keel to the centre of the disc.

Canada Shipping Act—continued

76.—BASIC MINIMUM SUMMER FREEBOARDS FOR STEAMSHIPS WHICH COMPLY WITH THE STANDARDS LAID DOWN IN THESE RULES

L	Freeboard	L	Freeboard	L	Freeboard	L	Freeboard
Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches
80	8.0	250	32.3	420	77.8	590	127.0
90	9.0	260	34.4	430	80.9	600	129.5
100	10.0	270	36.5	440	84.0	610	132.0
110	11.0	280	38.7	450	87.1	620	134.4
120	12.0	290	41.0	460	90.2	630	136.8
130	13.0	300	43.4	470	93.3	640	139.1
140	14.2	310	45.9	480	96.3	650	141.4
150	15.5	320	48.4	490	99.3	660	143.7
160	16.9	330	51.0	500	102.3	670	145.9
170	18.3	340	53.7	510	105.2	680	148.1
180	19.8	350	56.5	520	108.1	690	150.2
190	21.4	360	59.4	530	110.9	700	152.3
200	23.1	370	62.4	540	113.7	710	154.4
210	24.8	380	65.4	550	116.4	720	156.4
220	26.6	390	68.4	560	119.1	730	158.5
230	28.5	400	71.5	570	121.8	740	160.5
240	30.3	410	74.6	580	124.4	750	162.5

(i) The minimum freeboards for flush deck steamships shall be obtained by an addition to the above table at the rate of $1\frac{1}{2}$ inches for every 100 feet of length.

(ii) The freeboards at intermediate lengths shall be obtained by interpolation.

(iii) Where c exceeds .68, the freeboard shall be multiplied by the factor $\frac{c + .68}{1.36}$.

(iv) Where D exceeds $\frac{L}{15}$ the freeboard shall be

increased by $\left(D - \frac{L}{15}\right) R$ inches,

where R is $\frac{L}{130}$ at lengths less than 390 feet, and 3 at 390 feet length and above.

In a ship with an enclosed superstructure covering at least .6L amidships, or with a complete trunk, or with a combination of intact partial superstructures and trunk which extends all fore and aft, where D is less than $\frac{L}{15}$ the freeboard shall be reduced at the above rate.

Where the height of superstructures or trunk is less than the standard height, as determined in accordance with rule 47, the reduction shall be modified in the ratio which the actual height bears to the standard height.

(v) Where the actual depth to the surface of the freeboard deck amidships is greater or less than D , the difference between these two depths (in inches) shall be added to or deducted from the freeboard as the case may be.

Canada Shipping Act—continued

PART VII

COMPUTATION OF FREEBOARD FOR SAILING SHIPS

77. Subject to the provisions of paragraph (c) of subsection (2) of Section 425 of the Act and to the provisions of rule 38 and rules 78 to 84, freeboards for sailing ships shall be computed from the freeboard table for sailing ships contained in rule 83 in the same manner as the freeboards for steamships are computed from the freeboard table for steamships contained in rule 76.

78. In sailing ships having a greater rate of rise of floor than $1\frac{1}{2}$ inches per foot, the vertical distance from the top of keel referred to in rule 42 shall be reduced by half the difference between the total rise of floor at the half-breadth of the ship and the total rise at $1\frac{1}{2}$ inches per foot. Two and one-half inches per foot of half-breadth is the maximum rate of rise for which a deduction may be made.

Where the form at the lower part of the midship section is of a hollow character or thick garboards are fitted, the depth shall be measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

The depth used with the freeboard table shall be taken as not less than $\frac{L}{12}$.

79. The coefficient of fineness (c) used with the freeboard table contained in rule 83 shall be taken as not less than .62 and not greater than .72.

80. In wood ships the Assigning Authority shall be satisfied as to the efficiency of the construction and closing arrangements of superstructures for which deductions are made from the freeboard.

81. Where the effective length of superstructures is 1.0L, the deduction from the freeboard shall be 3 inches at 80 feet length of ship, and 28 inches at 330 feet length and above; deductions at intermediate lengths shall be obtained by interpolation. Where the total effective length of superstructures is less than 1.0L, the deduction shall be a percentage obtained from the following table:—

Superstructures	Total effective length of superstructures (E)											Line
	0	.1L	.2L	.3L	.4L	.5L	.6L	.7L	.8L	.9L	1.0L	
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	
All types without bridge.....	0	7	13	17	23.5	30	47.5	70	80	90	100	A
*All types with bridge	0	7	14.7	22	32	42	56	70	80	90	100	B

*Where the effective length of bridge is less than .2L, the percentages are obtained by interpolation between lines B and A. Percentages for intermediate lengths of superstructures are obtained by interpolation.

82. No addition to the freeboard shall be required for Winter freeboard nor shall a deduction be permitted for Tropical freeboard.

An increase in freeboard of 3 inches shall be made for the Winter North Atlantic freeboard.

In computing the Fresh Water freeboard for a wood ship, the draught shall be measured from the lower edge of the rabbet of the keel to the centre of the load line disc.

Canada Shipping Act—continued**83.—MINIMUM SUMMER, WINTER AND TROPICAL FREEBOARDS FOR IRON AND STEEL FLUSH DECK SAILING SHIPS, WHICH COMPLY WITH THE STANDARDS LAID DOWN IN THESE RULES**

L	Freeboard	L	Freeboard	L	Freeboard	L	Freeboard
Feet	Inches	Feet	Inches	Feet	Inches	Feet	Inches
80	9·2	140	21·3	200	35·4	270	53·5
90	11·0	150	23·5	210	37·9	280	56·3
100	12·9	160	25·8	220	40·4	290	59·1
110	14·9	170	28·2	230	42·9	300	61·9
120	17·0	180	30·6	240	45·5	310	64·7
130	19·1	190	33·0	250	48·1	320	67·6
				260	50·8	330	70·5

(i) The freeboards at intermediate lengths shall be obtained by interpolation.

(ii) Where c exceeds $\cdot 62$, the freeboard shall be multiplied by the factor $\frac{c + \cdot 62}{1 \cdot 24}$.

(iii) Where D exceeds $\frac{L}{12}$ the freeboard shall be increased by

$$\left(D - \frac{L}{12}\right) \times \left(1 + \frac{L}{250}\right) \text{ inches}$$

(iv) Where the actual depth to the surface of the freeboard deck amidships is greater or less than D , the difference between these two depths (in inches) shall be added to or deducted from the freeboard, as the case may be.

84. The freeboard for a wood sailing ship shall be the minimum freeboard which would be assigned to the ship if she were of iron or steel, with the addition of such amount of freeboard as the Assigning Authority may determine, having regard to the classification, construction, age and condition of the ship.

PART VIII**FREEBOARDS FOR STEAMSHIPS CARRYING TIMBER DECK CARGOES**

85. Timber freeboards shall be assigned to a steamship if the steamship, being otherwise entitled to have freeboards assigned to her, complies with this Part of these Rules to the extent thereby required in her case.

Supplementary Conditions of Assignment

86. The structure of the steamship shall be of sufficient strength for the deeper draught allowed and for the weight of the deck cargo.

87. The steamship shall have a forecastle of at least standard height and at least 7 per cent of the length of the ship, and, in addition, a poop, or a raised quarter deck with a strong steel hood or deck house fitted aft, provided that a steamship the keel of which was laid before the 1st day of July, 1932, need comply with the foregoing provisions of this Rule only so far as, in the opinion of the Assigning Authority, is reasonable and practicable.

Canada Shipping Act—continued

88. Machinery casings on the freeboard deck shall be protected by a superstructure of at least standard height, unless the machinery casings are of sufficient strength and height to permit of the carriage of timber alongside.

89. Double bottom tanks where fitted within the midship half length of the steamship shall have adequate longitudinal subdivision.

90. The steamship shall be fitted either with permanent bulwarks at least 3 feet 3 inches high, specially stiffened on the upper edge and supported by strong bulwark stays attached to the deck in way of the beams and provided with necessary freeing ports, or with efficient rails at least 3 feet 3 inches high and of specially strong construction.

91. Steering arrangements shall be effectively protected from damage by cargo, and, as far as practicable, shall be accessible. Efficient provision shall be made for steering in the event of a breakdown in the main steering arrangements.

92. Eye plates for lashings shall be riveted to the sheer-strake at intervals of not more than 10 feet, the distance from an end bulkhead of a superstructure to the first eye plate being not more than 6 feet 6 inches. Additional eye plates may be fitted on the stringer plate.

Computation of Freeboard

93. Where the Assigning Authority is satisfied that the steamship is suitable and that the conditions and arrangements are at least equal to the foregoing requirements for the carriage of timber deck cargo, the summer freeboards computed in accordance with the rules and tables in Part VI may be modified, to give special timber freeboards, by substituting the following percentages for those in rule 62.

	Total effective length of superstructures (E)										
	0	·1L	·2L	·3L	·4L	·5L	·6L	·7L	·8L	·9L	1·0L
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
All types.....	20	30·75	41·5	52·25	63	69·25	75·5	81·5	87·5	93·75	100

The Winter Timber freeboard shall be obtained by adding to the Summer Timber freeboard one-third of an inch per foot of the moulded Summer Timber draught.

The Winter North Atlantic Timber freeboards shall be identical with the Winter North Atlantic freeboards prescribed in rule 74.

The Tropical Timber freeboard shall be obtained by deducting from the Summer Timber freeboard one-quarter of an inch per foot of the moulded Summer Timber draught.

94. In the case of a steamship the keel of which was laid before the 1st day of July, 1932, which does not fully comply with the requirements of rule 87, the Assigning Authority shall make such addition to the freeboard as may be considered reasonable by the Board, having regard to the extent to which the steamship falls short of full compliance with those requirements.

Canada Shipping Act—continued**PART IX****FREEBOARDS FOR TANKERS**

95. Tanker freeboards shall be assigned to a ship, being a tanker, if the ship complies with the conditions of assignment and also complies with this Part of these Rules to the extent thereby required in her case.

Supplementary Conditions of Assignment

96. The structure of the ship shall be of sufficient strength for the increased draught corresponding to the freeboard assigned.

97. The ship shall have a forecastle of which the length is not less than 7 per cent of the length of the ship and the height is not less than the standard height; provided that a ship, the keel of which was laid before the 1st day of July, 1932, need comply with the foregoing provisions of this rule only so far as, in the opinion of the Assigning Authority, is reasonable and practicable.

98. The openings in machinery casings on the freeboard deck shall be fitted with steel doors. The casings shall be protected by an enclosed poop or bridge of at least standard height, or by a deck house of equal height and of equivalent strength. The bulkheads at the ends of these structures shall be of the scantlings required for bridge front bulkheads. All entrances to the structures from the freeboard deck shall be fitted with effective closing appliances and the sills shall be at least 18 inches above the deck. Exposed machinery casings on the superstructure deck are to be of substantial construction, and all openings in them shall be fitted with steel closing appliances permanently attached to the casings and capable of being closed and secured from both sides; the sills of such openings shall be at least 15 inches above the deck. Fiddley openings shall be as high above the superstructure deck as is reasonable and practicable and shall have strong steel covers permanently attached in their proper positions; provided that a ship, the keel of which was laid before the 1st day of July, 1932, need comply with the foregoing provisions of this rule only so far as, in the opinion of the Assigning Authority, is reasonable and practicable.

99. An efficiently constructed permanent gangway of sufficient strength for its exposed position shall be fitted fore and aft at the level of the superstructure deck between the poop and midship bridge, and, when any of the crew are berthed forward, from the bridge to the forecastle, unless other equivalent means of access are provided to carry out the purpose of the gangway, such as passages below deck.

100. Safe and satisfactory access from the gangway level to the quarters of the crew, the machinery space and all other parts used in the necessary work of the ship, shall be available at all times. This rule does not apply to pump rooms if suitable means of access are provided from the freeboard deck, and the access openings are fitted with Class 1 closing appliances.

101. All hatchways on the freeboard deck and on the deck of expansion trunks shall be closed watertight by efficient steel covers.

Canada Shipping Act—continued

102. Ventilators to spaces below the freeboard deck shall be of ample strength or shall be protected by superstructures or by equally efficient means.

103. Ships with bulwarks shall have open rails fitted for at least half the length of the exposed portion of the weather deck or such other freeing arrangements as are in the opinion of the Assigning Authority effective for the purpose of freeing the decks of water. The upper edge of the sheerstrake shall be kept as low as practicable, and as a general rule, shall not be higher than the upper edge of the gunwale bar.

Where superstructures are connected by trunks, open rails shall be fitted for the whole length of the weather portions of the freeboard deck.

Provided that a ship, the keel of which was laid before the 1st day of July, 1932, need comply with the foregoing provisions of this Rule only so far as, in the opinion of the Assigning Authority, is reasonable and practicable.

Computation of Freeboard

104. Where the Assigning Authority is satisfied that the foregoing requirements are fulfilled, freeboards shall be computed in accordance with Part VI of these Rules, subject to the provisions of rules 105 to 107, and to the substitution of the table set out in rule 108 for the table set out in rule 76; provided, however, that no addition shall be made under Note (i) appended to the table in rule 76 in respect of a flush deck steamship.

105. When the total effective length of superstructure is less than 1·0L, the deduction shall be the percentage of the deduction for a superstructure of length 1·0L, obtained from the following table:—

	Total effective length of superstructures										
	0	·1L	·2L	·3L	·4L	·5L	·6L	·7L	·8L	·9L	1·0L
		Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
All types.....	0	7	14	21	31	41	52	63	75·3	87·7	100

106. Where the sheer is greater than the standard, the correction for excess sheer as determined under rule 66 shall be deducted from the freeboard for all tankers. Rule 68 shall not apply except that the maximum deduction for excess sheer shall be 1½ inches at 100 feet length of ship and shall decrease at the rate of 1½ inches for each additional 100 feet in the length of the ship.

107. The minimum winter North Atlantic freeboard shall be the winter freeboard plus an addition at the rate of 1 inch per 100 feet in length.

Canada Shipping Act—continued**108.—FREEBOARD TABLE FOR TANKERS**

L in Feet	Freeboard in Inches	L in Feet	Freeboard in Inches
190	21·5	400	62·5
200	23·1	410	64·9
210	24·7	420	67·4
220	26·3	430	69·9
230	28·0	440	72·5
240	29·7	450	75·1
250	31·5	460	77·7
260	33·3	470	80·2
270	35·2	480	82·7
280	37·1	490	85·1
290	39·1	500	87·5
300	41·1	510	89·8
310	43·1	520	92·1
320	45·1	530	94·3
330	47·1	540	96·5
340	49·2	550	98·6
350	51·3	560	100·7
360	53·5	570	102·7
370	55·7	580	104·6
380	57·9	590	106·5
390	60·2	600	108·4

The freeboards for ships above 600 feet shall be determined by the Board.

109. In the case of any ship the keel of which was laid before the 1st day of July, 1932, which does not fully comply with the requirements of rules 97, 98 and 103, the Assigning Authority shall make such addition to the freeboard as may be considered reasonable by the Board, having regard to the extent to which the ship falls short of full compliance with those requirements.

PART X**SPECIAL STEAMSHIP FREEBOARDS**

110. In the case of steamships of special type over 300 feet in length possessing constructional features similar to those of a tanker which, in the opinion of the Board, afford extra invulnerability against the sea, a reduction in the freeboard computed for steamships under Part VI of these Rules may be granted.

The amount of such reduction shall be determined by the Board with reference to the freeboard assigned to tankers, having regard to the extent to which the steamship complies with the conditions of assignment and with the requirements of Part IX of these Rules and the degree of subdivision provided in the ship, but the freeboard assigned to such a ship shall in no case be less than the freeboard which would be assigned to her if she were a tanker.

PART XI**LOAD LINES**

111. (1) This rule shall apply to all steamships other than steamships to which rule 113 applies.

(2) Summer Load Line—The maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded while within—

Canada Shipping Act—continued

- (a) the Summer Zone as defined in the first part of the Third Schedule hereto, and
- (b) the areas set out in the first column of the second and third parts of the said schedule during the periods set out respectively opposite to such areas in the second column of the said second and third parts of the said schedule

shall be the depth indicated by the Summer load line.

(3) Winter Load Line—Save as is hereinafter provided, the maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded while within the areas set out in the first column of the second part of the Third Schedule hereto during the periods set out respectively opposite to such areas in the third column of the said second part of the said schedule shall be the depth indicated by the Winter load line.

Provided that in the case of a steamship required to be marked with a Winter North Atlantic load line under Part III of these Rules, the maximum depth in salt water to which such steamship is entitled to be loaded whilst engaged on a voyage across the North Atlantic Ocean within the areas numbered 1 and 2 in the first column of the said second part of the said schedule during the periods set out respectively opposite to those areas in the third column of the said second part of the said schedule shall be the depth indicated by such Winter North Atlantic load line.

(4) Tropical Load Line—The maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded while within—

- (a) the Tropical Zone as defined in the first part of the Third Schedule hereto, and
- (b) the areas set out in the first column of the third part of the Third Schedule hereto during the periods respectively set out opposite those areas in the third column of the said third part

shall be the depth indicated by the Tropical load line.

112. The maximum depth in salt water to which a sailing ship is entitled to be loaded is the depth indicated by the upper edge of the line which passes through the centre of the disc, except when engaged on a voyage across the North Atlantic Ocean within the areas numbered 1 and 2 in the first column of the second part of the Third Schedule hereto, during the periods set out respectively opposite to those areas in the third column of the said second part of the said schedule, in which case it shall be the depth indicated by the Winter North Atlantic load line.

113. (1) This rule shall apply to all steamships marked with Timber load lines in accordance with Part VIII of these Rules and carrying a deck cargo of timber in compliance with the Timber Cargo Regulations.

(2) Summer Timber Load Line—The maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded while within—

- (a) the Summer Zone as defined in the first part of the Third Schedule hereto, and
- (b) the areas set out in the first column of the second and third parts of the said schedule during the periods respectively set out opposite to such areas in the second column of the second and third parts of the said schedule

shall be the depth indicated by the Summer Timber load line.

Canada Shipping Act—continued

(3) **Winter Timber Load Line**—The maximum depth in salt water to which a steamship to which this rule applies, other than a steamship to which paragraph (4) of this rule applies, is entitled to be loaded while within the areas set out in the first column of the second part of the Third Schedule hereto during the periods respectively set out opposite to such areas in the third column of the said second part of the said schedule, shall be the depth indicated by the Winter Timber load line.

(4) **Winter North Atlantic Timber Load Line**—The maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded whilst engaged on a voyage across the North Atlantic Ocean within the areas numbered 1 and 2 in the first column of the second part of the said schedule, during the periods set out respectively opposite to those areas in the third column of the said second part, shall be the depth indicated by the Winter North Atlantic Timber load line.

(5) **Tropical Timber Load Line**—The maximum depth in salt water to which a steamship to which this rule applies is entitled to be loaded while within—

(a) the Tropical Zone as defined in the first part of the Third Schedule hereto, and

(b) the areas set out in the first column of the third part of the said schedule during the periods respectively set opposite those areas in the third column of the said third part,

shall be the depth indicated by the Tropical Timber load line.

114. In the application of the foregoing rules 111 to 113 to a ship at a port which is to be treated under the Third Schedule hereto as being on the boundary between two zones, two areas or a zone and an area, the ship shall be deemed to be in the zone or area into which she is about to proceed or from which she has arrived, as the case may be.

PART XII

GENERAL

115. Notwithstanding anything contained in these Rules a ship employed in making voyages from one place in Canada to another place in Canada other than on any lakes or rivers, shall be deemed to be an "existing" ship if the keel was laid before the 1st day of July, 1936, and shall be entitled to such exemptions on such conditions as are provided in these Rules in respect of a ship the keel of which was laid before the 1st day of July, 1932.

Canada Shipping Act—continued

FIRST SCHEDULE

FEES

Gross Tonnage	Classed Ships			Unclassed Ships		
	1	2	3	4	5	6
	Issue of certificate	Renewal of certificate	Annual survey	Issue of certificate	Renewal of certificate	Annual survey
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Under 500 tons.....	45.00	20.00	20.00	110.00	110.00	20.00
500 tons and under 1,000 tons...	70.00	20.00	20.00	150.00	150.00	20.00
1,000 " 2,000 " ..	90.00	30.00	30.00	220.00	220.00	30.00
2,000 " 3,000 " ..	115.00	35.00	35.00	280.00	280.00	35.00
3,000 " 4,000 " ..	125.00	40.00	40.00	310.00	310.00	40.00
4,000 " 5,000 " ..	135.00	40.00	40.00	340.00	340.00	40.00
5,000 " 6,000 " ..	145.00	40.00	40.00	370.00	370.00	40.00
6,000 " 7,000 " ..	155.00	40.00	40.00	400.00	400.00	40.00
7,000 " 8,000 " ..	165.00	40.00	40.00	430.00	430.00	40.00
8,000 " 9,000 " ..	175.00	40.00	40.00	460.00	460.00	40.00
9,000 " 10,000 " ..	185.00	40.00	40.00	490.00	490.00	40.00
10,000 tons and over.....	185.00	40.00	40.00	490.00	490.00	40.00
				plus \$30.00 for each addi- tional 1,000 tons	plus \$30.00 for each addi- tional 1,000 tons	

For barges, scows or other such vessels towed, under 1,000 tons, gross tonnage, fees as follows shall be charged:—

For the issue of a certificate \$60.00

For the renewal of a certificate 20.00

For annual survey 20.00

For barges, scows or other such vessels towed, of 1,000 tons, gross tonnage and upwards, the fee to be charged shall be according to the above table.

VARIATIONS OF STANDARD FEES

(1) Annual Survey carried through in one operation:—

For every annual survey of any ship over 500 tons (classed or unclassified) which is carried through in one operation there shall be paid:—

(a) the standard fee, and

(b) in addition, a single fee of \$10 if, for the purposes of the survey, more than one visit is paid to the ship by the surveyor.

(2) Annual Survey not carried through in one operation:—

For every annual survey of any ship (classed or unclassified) which is not carried through in one operation there shall be paid:—

(a) the standard fee,

(b) in addition, a fee of \$10 for every partial annual survey, and

(c) for any ship over 500 tons, in addition, a single fee of \$10 for every partial annual survey in respect of which, for the purposes of the partial annual survey, more than one visit is paid to the ship by the surveyor.

(3) Renewal Survey carried out concurrently with a Special Survey for classification purposes:—

Canada Shipping Act—continued

In the case of the survey of a classed ship for renewal of the load line certificate, the fee in column 2 shall be paid if the renewal is carried out concurrently with a Special Survey for classification purposes, for which a fee is charged. Otherwise the fee will be 50 per cent of that in column 1.

- (4) Issue or Renewal Survey carried out concurrently with the annual inspection required under the provisions of section 387 of the Canada Shipping Act, 1934:—

Where the survey for the issue or renewal of a load line certificate is carried out by a Steamship Inspector concurrently with the annual inspection required under the provisions of section 387 of the Canada Shipping Act, 1934, and the ship is

- (a) a classed ship—no fee will be charged under column 1 or column 2
— (b) an unclassified ship—half the fee under column 4 or column 5 will be charged.

- (5) Annual Survey carried out concurrently with the annual inspection required under the provisions of section 387 of the Canada Shipping Act, 1934:—

Where the annual load line survey is made by a Steamship Inspector at the same time as the annual inspection required under the provisions of section 387 of the Canada Shipping Act, 1934, no fee will be charged under column 3 or column 6.

- (6) Survey where minor alterations have been made to a ship:—

Where minor alterations have been made to a ship having a load line certificate in force, which involve an alteration of the freeboard but do not require a full survey, the fee in column 2 shall be paid whether the ship be classed or unclassified.

- (7) Partial survey for issue of a short term certificate:—

Where for special reasons a partial survey is made and a certificate is issued or renewed for a period not exceeding twelve months, one-half of the standard fee appropriate to a full survey shall be paid.

Canada Shipping Act—continued

SECOND SCHEDULE

FORMS OF LOAD LINE CERTIFICATE

FORM L.L. 2

INTERNATIONAL LOAD LINE CERTIFICATE

Issued by ISSUED UNDER THE AUTHORITY OF THE GOVERNMENT OF THE
 DOMINION OF CANADA UNDER THE PROVISIONS OF THE
 INTERNATIONAL LOAD LINE CONVENTION, 1930

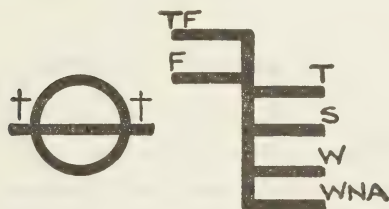
Name of ship Official number
 Port of registry
 Gross tonnage

Freeboard from deck line

Tropicalfeet.....inches. (T)inches above S.
 Summerfeet.....inches. (S) Upper edge of line through centre
 Winterfeet.....inches. of disc.
 (W)inches below S.

Winter North
 Atlanticfeet.....inches. (WNA)inches below S.
 Allowance for fresh water for all freeboards inches.

The upper edge of the deck line from which these freeboards are measured is
 inches above the top of the deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the Convention.

This certificate remains in force until

Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

NOTE.—Where sea-going steamships navigate a river or inland water, deeper loading is permitted, corresponding to the weight of fuel, etc., required for consumption between the point of departure and the open sea.

+Letters indicating the name of the Assigning Authority.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued

NOTES

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.
2. The winter North Atlantic load line applies for voyages across the North Atlantic, north of latitude 36° N., during the winter months as defined in the load line Rules. The periods during which the other seasonal load lines apply in different parts of the world are as stated in the load line Rules.
3. This certificate will be cancelled by the Minister if—
- (a) material alterations have taken place in the hull or superstructures of the ship which affect the position of the load lines; or
 - (b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or
 - (c) the annual survey is not made as required by the Canada Shipping Act, 1934.
4. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause to comply with such requirement, he shall, for each offence, be liable to a fine not exceeding fifty dollars.

APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS
OF DETACHED SUPERSTRUCTURES

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

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Canada Shipping Act—continued

FORM L.L. 2A

INTERNATIONAL LOAD LINE CERTIFICATE

Issued by ISSUED UNDER THE AUTHORITY OF THE GOVERNMENT OF THE
DOMINION OF CANADA UNDER THE PROVISIONS OF THE
INTERNATIONAL LOAD LINE CONVENTION, 1930

Name of ship Official number
Port of registry
Registered tonnage

Freeboard from deck line		Load line
Tropical } Summer } Winter }	.....feet.....inches	Upper edge of line through centre of disc.
Winter North	.....feet.....inches.	(WNA) inches below upper edge of line through centre of disc.
Atlantic	.....feet.....inches.	(WNA) inches below upper edge of line through centre of disc.

Allowance for fresh water for all freeboards inches.

The upper edge of the deck line from which these freeboards are measured is
..... inches above the top of the deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the Convention.

This certificate remains in force until

Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

+Letters indicating the name of the Assigning Authority.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued

NOTES

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.
2. The winter North Atlantic load line applies for voyages across the North Atlantic, north of latitude 36° N., during the winter months as defined in the load line Rules. The upper edge of the line through the centre of the disc applies for all other voyages.
3. This certificate will be cancelled by the Minister if—
- (a) material alterations have taken place in the hull or superstructures of the ship which affect the position of the load lines; or
 - (b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or
 - (c) the annual survey is not made as required by the Canada Shipping Act, 1934.
4. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause to comply with such requirement, he shall, for each offence, be liable to a fine not exceeding fifty dollars.

APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS
OF DETACHED SUPERSTRUCTURES

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

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Canada Shipping Act—continued

FORM L.L. 2B

INTERNATIONAL LOAD LINE CERTIFICATE

Issued by _____ ISSUED UNDER THE AUTHORITY OF THE GOVERNMENT OF THE
DOMINION OF CANADA UNDER THE PROVISIONS OF THE
INTERNATIONAL LOAD LINE CONVENTION, 1930

Name of ship Official number

Port of registry

Gross tonnage

<i>Freeboard from deck line</i>		<i>Load line</i>	
Tropical	.....feet.....inches.	(T)	.....inches above S.
Summer	.....feet.....inches.	(S)	Upper edge of line through centre of disc.
Winter	.....feet.....inches.	(W)	.....inches below S.

Winter Northinches below S.

Atlanticinches below S.

Allowance for fresh water for all freeboards inches.

The following load lines are applicable only when the ship is carrying a timber deck cargo and complies with all the provisions of the Timber Cargo Regulations.

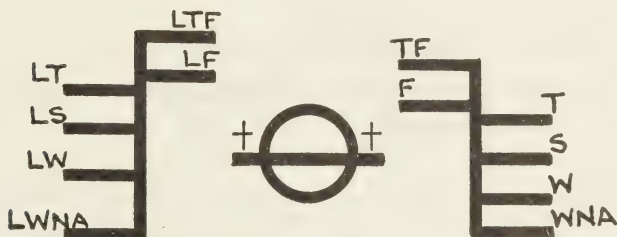
<i>Freeboard from deck line</i>		<i>Load line</i>	
Tropical (Timber)	.....feet.....inches.	(LT)	.....inches above LS.
Summer (Timber)	.....feet.....inches.	(LS)	.....inches above S.
Winter (Timber)	.....feet.....inches.	(LW)	.....inches below LS.

Winter Northinches below LS.

Atlantic (Timber)inches below LS.

The upper edge of the deck line from which these freeboards are measured is

..... inches above the top of the deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the Convention.

This certificate remains in force until

Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

NOTE.—Where sea-going steamships navigate a river or inland water, deeper loading is permitted, corresponding to the weight of fuel, etc., required for consumption between the point of departure and the open sea.

+Letters indicating the name of the Assigning Authority.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued

NOTES

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.
2. The winter North Atlantic load lines apply for voyages across the North Atlantic, north of latitude 36° N., during the winter months as defined in the load line Rules. The periods during which the other seasonal load lines apply in different parts of the world are as stated in the load line Rules.
3. This certificate will be cancelled by the Minister if—
- (a) material alterations have taken place in the hull or superstructures of the ship which affect the position of the load lines; or
 - (b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or
 - (c) the annual survey is not made as required by the Canada Shipping Act, 1934.
4. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause to comply with such requirement, he shall, for each offence, be liable to a fine not exceeding fifty dollars.

APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS
OF DETACHED SUPERSTRUCTURES

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

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Canada Shipping Act—continued

FORM L.L. 3

LOCAL LOAD LINE CERTIFICATE

FOR

A SHIP MAKING VOYAGES OTHER THAN ON LAKES OR RIVERS

Issued
by

ISSUED UNDER THE PROVISIONS OF THE CANADA SHIPPING ACT, 1934

Name of ship Official number

Port of registry

Gross tonnage

Freeboard from deck line

Load line

Tropicalfeet.....inches. (T)inches above S.

Summerfeet.....inches. (S) Upper edge of line through centre
of disc.

Winterfeet.....inches. (W)inches below S.

Allowance for fresh water for all freeboards inches.

The upper edge of the deck line from which these freeboards are measured is
..... inches above the top of the deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the provisions of the Canada Shipping Act, 1934.

This certificate remains in force until

Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

NOTE.—Where a certificate is issued in respect of a sailing ship the deck line, the disc with its intersecting line, and the fresh water line only need be shown.

NOTE.—Where sea-going steamships navigate a river or inland water, deeper loading is permitted, corresponding to the weight of fuel, etc., required for consumption between the point of departure and the open sea.

+Letters indicating the name of the Assigning Authority.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued

NOTES

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.
2. This certificate will be cancelled by the Minister if—
- (a) material alterations have taken place in the hull or superstructures of the ship which affect the positions of the load lines; or
 - (b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or
 - (c) the annual survey is not made as required by the Canada Shipping Act, 1934.
3. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause to comply with such requirement, he shall, for each offence, be liable to a fine not exceeding fifty dollars.

APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS
OF DETACHED SUPERSTRUCTURES

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

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Canada Shipping Act—continued

FORM L.L. 3T

LOCAL LOAD LINE CERTIFICATE

FOR

A SHIP MAKING VOYAGES OTHER THAN ON LAKES OR RIVERS

Issued
by

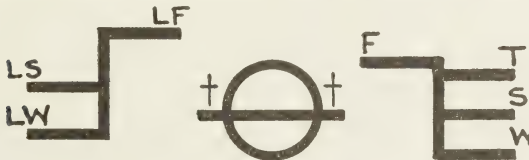
ISSUED UNDER THE PROVISIONS OF THE CANADA SHIPPING ACT, 1934

Name of ship	Official number
Port of registry	
Gross tonnage	
<i>Freeboard from deck line</i>	
Tropical	Load line (T)
Summer	(S) Upper edge of line through centre of disc.
Winter	(W)
Allowance for fresh water for all freeboards	inches.

The following load lines are applicable only when the ship is carrying a timber deck cargo and complies with all the provisions of the Timber Cargo Regulations.

<i>Freeboard from deck line</i>		<i>Load line</i>	
Summer (Timber)	inches.	(LS)	inches above S.
Winter (Timber)	inches.	(LW)	inches below LS.

The upper edge of the deck line from which these freeboards are measured is inches above the top of the deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been assigned in accordance with the provisions of the Canada Shipping Act, 1934.

This certificate remains in force until
Issued at on the day of 19....

(Here follows the seal of the Minister and marking to show that the certificate has been registered by the Chairman, or, in the case where the Assigning Authority is not the Chairman, the signature of the person competent to sign certificates for the Assigning Authority.)

NOTE.—Where sea-going steamships navigate a river or inland water, deeper loading is permitted, corresponding to the weight of fuel, etc., required for consumption between the point of departure and the open sea.

+Letters indicating the name of the Assigning Authority.

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

I have surveyed this ship for the purpose of seeing whether this certificate should remain in force and the survey has been completed to my satisfaction.

Signature of surveyor Place Date

Canada Shipping Act—continued

NOTES

1. This certificate must be kept framed and posted up in some conspicuous part of the ship so long as it remains in force and the ship is in use.
2. This certificate will be cancelled by the Minister if—
- (a) material alterations have taken place in the hull or superstructures of the ship which affect the positions of the load lines; or
 - (b) the fittings and appliances for the protection of openings, the guard rails, the freeing ports or the means of access to the crew's quarters have not been maintained on the ship in as effective a condition as they were in when the certificate was issued; or
 - (c) the annual survey is not made as required by the Canada Shipping Act, 1934.
3. Where this certificate has expired or been cancelled, it must be delivered up to the Assigning Authority and the ship may be detained until such requirement has been complied with, and if any owner or master fails without reasonable cause to comply with such requirement, he shall, for each offence, be liable to a fine not exceeding fifty dollars.

APPLIANCES FOR CLOSING ACCESS OPENINGS IN BULKHEADS AT ENDS
OF DETACHED SUPERSTRUCTURES

Forecastle	
Bridge, fore end	
Bridge, after end	
Raised quarter deck	
Poop	

Temporary appliances for closing openings in superstructure decks

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Canada Shipping Act—continued

THIRD SCHEDULE

ZONES AND SEASONAL AREAS

FIRST PART

Summer and Tropical Zones

1. The summer zone shall consist of the two following areas:—

(i) the area bounded (a) on the north by a line drawn from the east coast of North America along the parallel of 36° N. to Tarifa in Spain; from the east coast of Korea along the parallel of 35° N. to the west coast of Honshiu, Japan; from the east coast of Honshiu along the parallel of 35° N. to long. 150° W., and thence along a rhumb line to the west coast of Vancouver Island at lat. 50° N., and (b) on the south by a line drawn from Cape Catoche in the Yucatan to Cape San Antonio in Cuba; along the South Cuban coast to lat. 20° N., and along the parallel of 20° N. to the west coast of Africa; from the port of Hong Kong along a rhumb line to the port of Sual (Luzon Island), and along the west coast of the islands of Luzon, Samar and Leyte to the parallel of 10° N. thence along the parallel of 10° N. to long. 145° E. thence north to lat. 13° N. and thence along the parallel of 13° N. to long. 160° E. thence along the meridian of 160° E. to lat. 25° N. thence along the parallel of 25° N. to long. 130° W. thence south along the meridian of 130° W. to lat. 13° N. thence along the parallel of 13° N. to long. 105° W. thence along a rhumb line to the point lat. 30° N. long. 120° W. and from that point along the meridian to the Californian coast.

(ii) the area bounded (a) on the north by a line from the east coast of South America along the Tropic of Capricorn to the west coast of Africa; from the east coast of Africa along the parallel of 20° S. to the west coast of Madagascar, thence along the west and north coast of Madagascar to long. 50° E. thence north to lat. 10° S., thence along the parallel of 10° S. to long. 110° E. thence along a rhumb line to Port Darwin, Australia, thence along the north and northeast coast of Australia to lat. 20° S. thence along the parallel of 20° S. to long. 175° E. thence along the meridian of 175° E. to lat. 11° S. thence along the parallel of 11° S. to long. 150° W. thence south along the meridian of 150° W. to lat. 20° S. thence along the parallel of 20° S. to a point where that parallel meets the rhumb line drawn from lat. 11° S. long. 150° W. to lat. 26° S. long. 75° W. thence along that rhumb line to the latter point and thence along the rhumb line to the west coast of South America at lat. 30° S.; and (b) on the south by a line drawn from the east coast of South America along the parallel of 40° S. to long. 56° W. thence along a rhumb line to the point lat. 34° S. long. 50° W. thence along the parallel of 34° S. to the west coast of South Africa; from the east coast of South Africa at lat. 30° S. along a rhumb line to the west coast of Australia at lat. 35° S. thence along the south coast of Australia to Cape Arid and thence along a rhumb line to Cape Grim, Tasmania, thence along the north coast of Tasmania to Eddystone Point thence along a rhumb line to the west coast of South Island, New Zealand, at long. 170° E. thence along the west, south and east coasts of South Island to Cape Saunders thence along a rhumb line to the point lat. 33° S. long. 170° W. and thence along the parallel of 33° S. to the west coast of South America.

Canada Shipping Act—continued**2. The tropical zone shall consist of**

(i) the area bounded (a) on the north by a line drawn from the east coast of South America at lat. 10° N. along the parallel of 10° N. to long. 20° W. thence north along the meridian to lat. 20° N. and thence along the parallel of 20° N. to the west coast of Africa; from the east coast of Africa at lat. 8° N. along the parallel to the west coast of the Malay Peninsula, following thence the coast of Malaya and Siam to the east coast of Cochin China at lat. 10° N. thence along the parallel of 10° N. to long. 145° E. thence north along the meridian to lat. 13° N. and thence along the parallel of 13° N. to the west coast of Central America; and (b) on the south by a line drawn from the east coast of South America along the Tropic of Capricorn to the west coast of Africa; from the east coast of Africa along the parallel of 20° S. to the west coast of Madagascar thence along the west and north coasts of Madagascar to long. 50° E. thence north to lat. 10° S. thence along the parallel of 10° S. to long. 110° E. thence along a rhumb line to Port Darwin, Australia, thence eastwards along the coast of Australia and Wessel Island to Cape Wessel thence along the parallel of 11° S. to the west side of Cape York; from the east side of Cape York at lat. 11° S. along the parallel of 11° S. to long. 150° W. thence along a rhumb line to the point lat. 26° S. long. 75° W. and thence along a rhumb line to the west coast of South America at lat. 30° S.

(ii) The Suez Canal, the Red Sea and the Gulf of Aden to the westward of the meridian of 45° E. and

(iii) The Persian Gulf to the westward of the meridian of 59° E.

NOTES

(i) The following ports are to be treated as being on the boundary between the summer zone and the tropical zone: Coquimbo, Port Darwin and Rio de Janeiro.

(ii) The port of Fusan (Korea) is to be treated as being on the boundary between the summer zone and the area numbered 4 in the second part of the schedule.

(iii) The port of Yokohama is to be treated as being on the boundary between the summer zone and the area numbered 5 in the second part of the schedule.

(iv) The following ports are to be treated as being on the boundary between the summer zone and the area numbered 6 in the second part of the schedule: Cape Town, Durban, Valparaiso.

(v) The following ports are to be treated as being on the boundary between the summer zone and the area numbered 11 in the third part of the schedule: Hong Kong and Sual.

(vi) The following ports are to be treated as being on the boundary between the tropical zone and the area numbered 9 in the third part of the schedule: Aden and Berbera.

(vii) Saigon is to be treated as being on the boundary between the tropical zone and the area numbered 11 in the third part of the schedule.

(viii) Mackay is to be treated as being on the boundary between the summer zone and the area numbered 14 in the third part of the schedule.

Canada Shipping Act—continued

SECOND PART

Seasonal Areas—Summer and Winter

No.	Area	Summer Period	Winter Period
	Description		
1	The area within and to the northwards of the following line:— A line drawn south from the coast of Greenland at long. 50° W. to lat. 45° N. thence along the parallel of 45° N. to long. 15° W. thence north at lat. 60° N. thence along the parallel of 60° N. to the west coast of Norway. Bergen is considered as being on the boundary between this area and area 2 below.	April 16 to October 15.	October 16 to April 15.
2	The area north of a line drawn from the east coast of America along the parallel of 36° N. to Tarifa in Spain excluding area 1 above but including the Baltic Sea.	April 1 to October 31.	November 1 to March 31.
3	The Mediterranean and the Black Seas.	March 16 to December 15.	December 16 to March 15.
4	The Sea of Japan between the parallels of 35° N. and 50° N.	March 1 to November 30.	December 1 to February 28/29.
5	The area north of a line drawn from the east coast of Honshiu in Japan along the parallel of 35° N. to long. 150° W. and thence along a rhumb line to the west coast of Vancouver Island at lat. 50° N., but excluding area 4 above.	April 16 to October 15.	October 16 to April 15.
6	The area south of a line drawn from the east coast of South America along the parallel of 40° S. to long. 56° W. thence along a rhumb line to the point lat. 34° S. long. 50° W. thence along the parallel of 34° S. to the west coast of South Africa; from the east coast of South Africa at lat. 30° S. along a rhumb line to the west coast of Australia at lat. 35° S. thence along the south coast of Australia to Cape Arid thence along a rhumb line to Cape Grim, Tasmania, thence along the north coast of Tasmania to Eddystone Point thence along a rhumb line to the west coast of South Island, New Zealand, at long. 170° E. thence along the west, south and east coasts of South Island to Cape Saunders thence along a rhumb line to the point lat. 33° S. long. 170° W.; and thence along the parallel of 33° S. to the west coast of South America.	October 16 to April 15.	April 16 to October 15.

Canada Shipping Act—*continued*

THIRD PART

Seasonal Areas—Summer and Tropical

No.	Area	Summer Period	Tropical Period
	Description		
7	The area bounded on the North by a line from Cape Catoche in Yucatan to Cape San Antonio in Cuba, along the South Cuban coast to lat. 20° N. and along the parallel of 20° N. to the point lat. 20° N. long. 20° W.; on the west by the coast of Central America; on the south by the north coast of South America and by the parallel of 10° N.; and on the east by the meridian of 20° W.	July 16 to October 31.	November 1 to July 15.
8	The area of the Arabian Sea north of the parallel of 24° N. and east of the meridian of 50° E. Karachi is considered as being on the boundary between this area and area 9 below.	May 21 to July 31.	August 1 to May 20.
9	The area of the Arabian Sea south of the parallel of 24° N. north of the parallel of 8° N. and east of the meridian of 45° E.	May 21 to September 15 and October 16 to November 30.	December 1 to May 20 and September 16 to October 15.
10	The area of the Bay of Bengal north of the parallel of lat. 8° N.	April 16 to December 15.	December 16 to April 15.
11	The area of the China Sea, bounded on the west and north by the coast of Indo-China and China to Hong Kong; on the east by a rhumb line to the port of Sual (Luzon Island) and by the west coast of the Islands of Luzon, Samar and Leyte to the parallel of 10° N.; and on the south by the parallel of 10° N.	May 1 to January 20.	January 21 to April 30
12	The area in the North Pacific Ocean bounded on the north by the parallel of 25° N. on the west by the meridian of 160° E.; on the south by the parallel of 13° N.; and on the east by the meridian of 130° W.	November 1 to March 31.	April 1 to October 31.
13	The area bounded on the north and east by the coast of California, Mexico and Central America; on the west by the meridian of 120° W. and by a rhumb line from the point lat. 30° N., long. 120° W., to the point lat. 13° N., long. 105° W.; and on the south by the parallel of 13° N.	July 1 to October 31 and December 1 to February 28/29.	March 1 to June 30 and November 1 to 30.
14	The area in the South Pacific Ocean bounded on the north by the parallel of 11° S.; on the west by the east coast of Australia; on the south by the parallel of 20° S., and on the east by the meridian of 175° E., together with the Gulf of Carpentaria south of the parallel of 11° S.	December 1 to March 31.	April 1 to November 30.
15	The area bounded on the west by the meridian of 150° W.; on the south by the parallel of 20° S.; and on the north and east by a rhumb line drawn from the point lat. 11° S., long. 150° W. to the point lat. 26° S., long. 75° W.	December 1 to February 28/29.	March 1 to November 30

Canada Shipping Act—continued

36. Regulations for the inspection of boilers other than for propelling purposes

P.C. 4408

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 31st day of August, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of the Canada Shipping Act, 1934, is pleased to make the following regulations entitled "Regulations for the Inspection of Boilers under section 473A of the Canada Shipping Act, 1934", and the said regulations are hereby made and established accordingly:

REGULATIONS FOR THE INSPECTION OF BOILERS UNDER SECTION 473A
OF THE CANADA SHIPPING ACT, 1934

1. In these Regulations,

- (a) *Board* means the Board of Steamship Inspection;
- (b) *boiler* means a boiler for generating steam fitted in a vessel for any purposes other than propelling purposes;
- (c) *Chairman* means the Chairman of the Board;
- (d) *existing boiler* means a boiler whose construction was commenced before the first day of October, 1949; and
- (e) *new boiler* means a boiler whose construction was commenced after the first day of October, 1949.

2. Every new boiler shall be subject to inspection in accordance with the Regulations respecting the Inspection of Boilers and Machinery of Steamships made and established by Order in Council P.C. 3111 of 13th July, 1948, or The Rules and Regulations of Lloyd's Register of Shipping in force from time to time, but the Board may prescribe the requirements for boiler mountings of new boilers, the working pressure of which does not exceed fifty pounds to the square inch.

3. Every existing boiler shall be inspected by a steamship inspector in accordance with directions given by the Board, and the working pressure of such boiler shall be determined by appropriate formulae approved by the Board, and the materials, mountings and workmanship of such boiler shall comply with the requirements of the Board.

4. The steamship inspector making the inspection shall forward to the Chairman a report of the inspection in such form as the Chairman may prescribe.

5. The fees for first inspection of boilers under these Regulations shall be as prescribed by Order in Council P.C. 1237 of 31st May, 1920.

6. Subsequent to first inspection, boilers subject to these Regulations shall with their mountings be inspected annually or oftener if deemed necessary and the fee for each such inspection shall be \$10.00.

7. These Regulations do not apply to any boiler where the working pressure does not exceed fifty pounds per square inch or where the heating surface does not exceed fifty square feet.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—*continued*

37. Canadian Distressed Seamen Regulations

P.C. 4451

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of September, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and by virtue of the authority conferred by section 294 of the Canada Shipping Act, 1934, is pleased to order as follows:—

1. The Canadian Distressed Seamen Regulations, established by Order in Council P.C. 609 of 23rd March 1937, are hereby revoked; and

2. The annexed "Canadian Distressed Seamen Regulations" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

CANADIAN DISTRESSED SEAMEN REGULATIONS

1. In these Regulations:

(1) "Minister" means the Minister of Transport;

(2) "Proper Authority" means:—

(a) As respects a place out of His Majesty's dominions, the British Consular Officer, or, if there is no such officer in the place, any two British merchants resident at or near the place, or, if there is only one British merchant so resident, that British merchant; and

(b) As respects a place in His Majesty's dominions,

(i) In relation to the discharge or leaving behind of seamen (or the payment of penalties), a Superintendent as defined in the Merchant Shipping Act, or, in the absence of any such Superintendent, the chief officer of Customs at or near the place; and

(ii) In relation to distressed seamen, the Governor of any part of His Majesty's dominions, or any person acting under his authority.

(c) As respects a place in Canada a Shipping Master.

(3) "Proper return port" means the port at which the seaman was shipped or a port in the country to which he belongs or, in the case of a discharged seaman, some other port agreed to by the seaman at the time of his discharge. In the case of a seaman shipped in Canada the return port shall be in the province in which he was shipped unless otherwise agreed by him.

(4) "Seamen" includes apprentices to the sea service and every person (except pilots, cadets and pupils on training ships and naval ratings or other persons in the permanent service of a Government) employed or engaged in any capacity on board any vessel and entered on the ship's articles.

Canada Shipping Act—continued

2. (1) Persons who may be relieved.—Sections 294 and 295 of the Canada Shipping Act, 1934. The persons entitled to relief under these Regulations and who are hereinafter referred to as distressed seamen are:—

- (a) Any seamen, whether subjects of His Majesty or not, who have been domiciled in Canada for at least twelve months before commencement of the voyage or engagement on which they are at the time employed, are found in any place out of Canada and have been shipwrecked from any ship registered in Canada or elsewhere or by reason of having been discharged or left behind from any such ship in any place out of Canada, are in distress in that place;
- (b) Any Canadian seamen who, having been engaged by any person acting either as principal or agent to serve in a ship belonging to the government or a subject or citizen of a foreign country, are in distress in any place out of Canada.

(2) Whether seamen are in distress or not is a matter to be decided by the Proper Authority on the merits of each case.

3. Limitation of time.—If three months have elapsed since a seaman left his last ship before he applies to the Proper Authority for relief he shall not be entitled to relief under these Regulations.

4. Stowaways.—Stowaways and other persons not on the Articles of a ship are not entitled to relief unless they have been employed or engaged in some capacity on board the ship leaving them behind.

5. Relief to be discontinued in certain circumstances.—When the Proper Authority is satisfied (by medical certificate or otherwise) that a seaman is fit to work, no further relief shall be granted to him if he refuses to accept reasonable employment.

6. Wrecked seamen.—In case of shipwreck the date on which each member of the crew will be entitled to relief may vary according to the time when he ceases to be employed in connection with the wreck.

7. Nature of Relief.—Distressed seamen are entitled to relief and reasonable maintenance, but only until employment can be found for them or arrangements made for their return to a proper return port.

8. Clothing and Medical Expenses.—Distressed seamen shall, if necessary, be supplied with reasonably adequate clothing and bedding. Officers shall be furnished with clothing of the same quality as that supplied to seamen. Medical treatment and medicine shall be provided when necessary.

9. Period of Relief.—No definite period can be fixed during which a seaman shall receive relief, but in every case in which relief is continued for more than a month a special report of the circumstances shall be furnished by the Proper Authority to the Minister.

10. Employment or return of distressed seamen.—Seamen who are in receipt of relief from a Proper Authority and are unable to ship or to find other employment shall be sent to a proper return port as soon as practicable, but the Proper Authority at any place en route to such return port shall, if possible, obtain employment for the seamen.

11. The return port to which, and the route by which a seaman should be sent shall be decided by the Proper Authority who shall have regard both to the convenience of the seaman and to the expense involved.

Canada Shipping Act—continued

12. (1) Mode of providing for return.—Section 300 Canada Shipping Act, 1934.—A seaman may be sent to a proper return port by any reasonable route either by sea or land or air or partly by sea and partly by land or air.

(2) For the whole or any part of the route which is by sea, the Proper Authority shall place the seaman on board a British ship which is in want of men to make up its complement, or, if that is not practicable, shall provide the seaman with a passage in a British ship in accordance with Regulation 17.

13. (1) Conveyance by foreign ships.—Whenever there is no British ship in which a distressed seaman can be sent either to a proper return port or to a port en route thereto, the Proper Authority may, if he considers it desirable, secure a passage for him in a foreign ship on the best terms obtainable.

(2) If the passage be not prepaid application for payment should be made by the Master of the ship to the Proper Authority at the port to which the seaman has been so conveyed.

14. Expense of journey.—Section 300 Canada Shipping Act, 1934.—Where it is found impossible to arrange for a seaman's return as prescribed in the two preceding Regulations, the Proper Authority may provide a seaman with money for his passage, and as to any part of the route which is by land, may pay the expenses of his journey and of his maintenance during the journey, or provide him with means to pay those expenses.

15. (1) Return port to be specified.—The Proper Authority at the port where a seaman is originally relieved having determined the return port to which the seaman is entitled to be sent, shall indicate the return port on any document issued for his conveyance thereto or to any place en route thereto.

(2) Action of Proper Authority at places en route.—Section 300 Canada Shipping Act, 1934.—Where distressed seamen cannot be sent direct to their proper return port, the Proper Authority at any place en route may defray, on behalf of the authority originally making arrangements for the distressed seamen's return to a proper return port, any expenses on account of that seaman which the authority originally acting in respect of him could defray.

16. Endorsement on Agreement and issue of Conveyance Order.—The Proper Authority shall, whenever practicable, endorse upon the Agreement of any British ship in which distressed seamen are to be conveyed, either to a proper return port or to a port en route to such port, the name of each man put on board, specifying the day he embarks, and also fill up, sign, and deliver to the master of such ship an Order in the form approved by the Minister (hereinafter called a Conveyance Order), showing thereon, either the port to which, or the country to a port in which, the seaman is entitled to be sent.

17. (1) Obligation of Masters of ships registered in Canada to convey seamen.—Section 302 Canada Shipping Act, 1934.—The master of every ship registered in Canada to whatever port it may be bound, is required to receive on board his ship and afford passage and maintenance to all distressed seamen, in compliance with the Conveyance Order issued by the Proper Authority, not exceeding one for every 50 tons burden, and shall during the passage provide every such distressed seaman with a proper berth or sleeping space, effectually protected against sea and weather.

Canada Shipping Act—continued

(2) Rates of passage.—On arrival at the port to which a seaman has been so conveyed the Master shall produce the Conveyance Order to the Proper Authority, and on satisfying him that the seaman has been so conveyed, maintained, and provided for by him in excess of the number, if any, wanted to make up the complement of his crew, shall be paid at the following rates, viz:—

- (a) For masters, mates and engineers (certificated and uncertificated), surgeons, chief stewards, chief pursers, wireless operators and apprentices (including midshipmen and cadets), \$1.50 a day.
- (b) For other distressed seamen, \$1 a day.
- (c) If conveyed in vessels of the same owners as those to which the persons conveyed have belonged, half the above rates only shall be paid.

18. Officers and other superior ratings.—Unless superior accommodation and subsistence be provided for masters, mates and engineers, surgeons, chief stewards, chief pursers, wireless operators and apprentices, the rates payable for such persons shall be the same as for other distressed seamen.

19. Rescued seamen.—Whenever a ship with distressed seamen on board who have been rescued or picked up at sea, arrives at a port, the Proper Authority may pay the Master of the ship for their subsistence at the rates specified in regulation 17.

20. Foreign Seamen.—Expenses under these regulations shall not be incurred for foreign seamen, after serving on a ship registered in Canada, when in their own countries or in the colonies of their own countries.

21. (1) Seamen mentally deranged.—In order to provide for the passage to a proper return port of a distressed seaman suffering from mental derangement, the Proper Authority, with the object of insuring that requisite care and attendance shall be given to the seaman during the voyage, may make a special arrangement with a Master agreeing to pay, if necessary, such sum for the passage in addition to the usual allowance as may appear fair and reasonable under the circumstances. A copy of the agreement so entered into shall in every case be forwarded to the Minister as soon as possible, and also, in any case where it is desirable to send the seaman to a foreign port or to a port in a British possession, whether en route or otherwise, to a Proper Authority at that port.

(2) In the case of a seaman arriving under such circumstances at his port, the Proper Authority may, in addition to the usual allowance, pay to the Master the amount of the extra passage money on production of such an agreement, and upon being satisfied that the seaman has received the special care and attendance stipulated for. An immediate advice of such a payment, together with the original agreement and the receipt of the Master for the passage money, shall be sent to the Minister.

22. Seamen at infected ports.—Whenever a passage to a proper return port is required for a distressed seaman at a port infected at the time with cholera, yellow fever, or plague, or for a distressed seaman who has suffered from any of these complaints, whether the port from which he is sent be an infected port or not, a certificate shall be obtained by the Proper Authority from a duly qualified medical practitioner that he is not a source of danger to others. The certificate shall state the nature of the disease from which the distressed seaman has suffered, and shall be given to the Master of the conveying ship for

Canada Shipping Act—continued

production, if required, to medical and sanitary authorities at other ports, and shall be retained by him until the distressed seaman reaches his proper return port, or in the case of a seaman conveyed to an intermediate port, the certificate shall be delivered with the Conveyance Order to the Proper Authority at such port.

23. (1) Certain cases of illness. Section 288 Canada Shipping Act, 1934.—Sick or injured masters whose cases are governed by the provisions of section 288 of the Canada Shipping Act, 1934, shall be sent to a proper return port under Conveyance Order, as in the case of certificated officers at the rate of \$1.50 per day; and the same course shall be followed, whenever possible, in the case of masters who have been taken in charge owing to shipwreck or other causes.

(2) Arrangements for the repatriation of masters at ordinary passenger rates shall be made only when a Conveyance Order cannot be issued.

(3) Where a seaman discharged or left behind suffering from any illness due to his own wilful act or default or to his own misbehaviour has to be dealt with under these regulations, the expense of providing necessary surgical and medical treatment and medicine, and also the expense of the maintenance of such seaman until he is cured, or dies, or is returned to a proper return port, and of his conveyance to such port, and in the case of death the expenses (if any) of his burial, shall be met as far as possible out of his wages.

24. These regulations do not apply to shipwrecked, destitute or otherwise distressed seamen in Canada, except when en route to a proper return port as provided in subsection (2) of regulation 15.

38. Rules of the Road for the Great Lakes

P.C. 5273

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of October 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of section 637 of the Canada Shipping Act, 1934, is pleased to order as follows:

1. The Rules of the Road for the Great Lakes established by Order in Council P.C. 1323 of 22nd March, 1949, as amended, are hereby revoked;

2. The annexed "Rules of the Road for the Great Lakes" are hereby made and established in substitution for the Rules hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

Canada Shipping Act—continued

RULES OF THE ROAD FOR THE GREAT LAKES

In force on the Great Lakes, their connecting and tributary waters and on the Ottawa and St. Lawrence Rivers and their tributaries, as far east as the lower exit of the Lachine Canal and the Victoria Bridge at Montreal.

1. In these Rules, unless the context otherwise requires:—

- (a) "pilot" includes the master, officer or other person in charge of the navigation of a vessel;
- (b) "prescribed" means prescribed by these Rules;
- (c) "steam vessel" includes any vessel propelled by machinery, whether under sail or not;
- (d) "sailing vessel" includes every steam vessel that is under sail and is not being propelled by machinery;
- (e) "under way". A vessel is under way when she is not at anchor, made fast to the shore, or aground;
- (f) "visible" when applied to lights means visible on a dark night with a clear atmosphere;
- (g) "motor boat" includes every vessel propelled by machinery and not more than sixty-five feet in length except vessels towing. The length shall be measured from end to end over the deck, excluding sheer.

VESSEL LIGHTS, MARKS AND FOG SIGNALS

2. The Rules concerning lights shall be observed in all weathers from sunset to sunrise, and during such time no other lights which could be mistaken for the prescribed lights or impair their visibility shall be exhibited.

STEAM VESSELS

3. (1) Except in the cases hereinafter expressly provided for, a steam vessel when under way shall carry:

Headlight

- (a) On or in front of the foremast, or if a vessel without a foremast, then in the fore part of the vessel, a bright white light so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light ten points on each side of the vessel, namely, from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least five miles. Such light shall be at a greater height above the water than the side lights required by paragraphs (b) and (c);

Starboard Side Light

- (b) On the starboard side, a green light, so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the starboard side and of such a character as to be visible at a distance of at least two miles;

Port Side Light

- (c) On the port side, a red light, so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the port side, and of such a character as to be visible at a distance of at least two miles.

Canada Shipping Act—continued*Light Screens*

(2) The green and red lights required by paragraphs (b) and (c) of subsection (1) hereof shall each be fitted with an inboard screen projecting at least three feet forward from the light, so as to prevent the light from being seen across the bow.

Range Lights—Steam vessels over one hundred feet in length

(3) A steam vessel of over one hundred feet register length when under way shall carry, in addition to the lights prescribed by subsection (1) hereof, a bright white light so fixed as to throw the light all around the horizon, and of such a character as to be visible at a distance of at least three miles, such light to be placed in line with the keel at least fifteen feet higher than, and more than fifty feet abaft, the light mentioned in paragraph (a) of subsection (1); or in lieu thereof two such lights of the same character and height as herein described placed not over thirty inches apart horizontally, one on either side of the keel, and so arranged that one or the other or both shall be visible from any angle of approach.

Range Lights—Steam vessels not over one hundred feet in length

(4) A steam vessel not more than one hundred feet in length when under way shall carry, in addition to the lights prescribed by subsection (1) hereof, a bright white light aft to show all around the horizon. Such light shall be placed in line with the keel higher than the light required by paragraph (a) of subsection (1).

Vessels towing, other than those towing rafts

4. A steam vessel having a tow other than a raft, shall in addition to the lights prescribed for vessels of her length by Rule 3, carry forward a second bright white light. Such light shall be of the same construction and character and fixed in the same manner as the light prescribed by Rule 3 (1) (a) and shall be carried in a position not less than six feet vertically above or below that light. Such steam vessel shall also carry a small white light abaft the funnel or aftermast for the tow to steer by, but such light shall not be visible forward of the beam.

Vessels Towing Rafts

5. A steam vessel having a raft in tow shall, instead of the forward lights mentioned in Rule 4, carry on or in front of the foremast, or if a vessel without a foremast, then in the fore part of the vessel, two white lights in a horizontal line athwartships and not less than eight feet apart, each so fixed as to throw the light all around the horizon and of such a character as to be visible at a distance of at least five miles. Such steam vessel shall also carry the small white steering light aft, of the character and fixed as required by Rule 4, and shall also comply with the requirements of Rule 3 respecting side lights, screens and range lights.

Tugboats

6. (1) A tugboat under 100 tons register (net) whose principal business is harbour towing, shall carry the red and green side lights carried by other steam vessels; and at the foremast head, or, if the tugboat has no foremast, then on top of the pilot house, a white light so constructed as to show a uniform and unbroken light over an arc of the horizon of twenty points of the compass, and so fixed as to throw the light ten points on each side of

Canada Shipping Act—continued

the vessel, namely, from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least three miles; and when towing, except when towing a raft, shall carry an additional white light of the same character and construction as the headlight and carried not less than three feet vertically above or below the headlight.

(2) When towing a raft, two headlights shall be carried in a horizontal line athwartships not less than four feet apart, each so fixed as to throw the light all around the horizon, and of such a character as to be visible at a distance of at least three miles. These headlights shall be in lieu of the headlights prescribed by subsection (1) of this Rule.

Ferryboats

7. (1) Every double-end ferryboat propelled by machinery, except a cable ferry, shall carry the green and red side lights required for other vessels, and in lieu of the white lights shall carry two bright white lights as a central range, one at or near each end of the vessel. These white lights shall be placed at equal heights above the hull, in the centre line of the vessel, and constructed to be visible at a distance of at least three miles all around the horizon. The green and red side lights shall be of such a character as to be visible at a distance of at least two miles, and shall be fitted with inboard screens projecting at least three feet forward from the lights, to prevent them from being seen across the bow.

(2) Other ferryboats propelled by machinery, except cable ferries, shall carry lights prescribed for steam vessels of their length.

Open Boats

8. (1) An open boat shall not be obliged to carry the side lights required for other vessels, but shall, if she does not carry such lights, carry a lantern having a green slide on one side and a red slide on the other side; and on the approach of or to other vessels such lantern shall be exhibited in sufficient time to prevent collision and in such manner that the green light shall not be seen on the port side nor the red light on the starboard side. An open boat, when at anchor or stationary, shall exhibit a bright white light. She shall not, however, be prevented from using a flare-up light in addition if considered expedient.

(2) A rowing boat or a canoe, whether having a sail or not, shall show a white light in sufficient time to prevent collision.

Motor Boats

9. Motor boats as defined in these Rules shall be divided into four classes as follows:

Class A: Less than sixteen feet in length.

Class 1: Sixteen feet or over and less than twenty-six feet in length.

Class 2: Twenty-six feet or over in length and less than forty feet in length.

Class 3: Forty feet or over and not more than sixty-five feet in length.

Such motor boats shall not be obliged to carry the lights prescribed in Rule 3, but if they do not carry them they shall be provided with the following lights:

(1) A motorboat of Class A or Class 1 shall carry:

(a) A bright white light aft to show all around the horizon;

Canada Shipping Act—continued

- (b) A combined lantern in the fore part of the vessel and lower than the white light aft so constructed and fixed as to show a green light from right ahead to two points abaft the beam on the starboard side and a red light from right ahead to two points abaft the beam on the port side.
- (2) A motorboat of Class 2 or Class 3 shall carry:
 - (a) A bright white light in the fore part of the vessel, as near the stem as practicable, so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on either side;
 - (b) A bright white light aft to show all around the horizon, placed higher than the white light forward;
 - (c) On the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the starboard side; on the port side a red light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the port side. These sidelights shall be fitted with inboard screens of sufficient height and length and so placed as to prevent the lights from being seen across the bow.
- (3) Every white light prescribed by this Rule shall be of such a character as to be visible at a distance of at least two miles. Every coloured light prescribed by this Rule shall be of such a character as to be visible at a distance of at least one mile.

Sailing Vessels and Vessels Being Towed

10. (1) A sailing vessel under way and any vessel being towed shall carry the side lights prescribed by Rule 3.

(2) A vessel being towed shall also carry a small white light aft, but such light shall not be visible forward of the beam.

(3) A sailing vessel shall, on the approach of another vessel, show temporarily a white light in the direction of the approaching vessel.

Small Vessels

11. (1) Whenever, as in the case of small vessels under way during bad weather, the green and red side lights cannot be fixed, these lights shall be kept at hand lighted and ready for use, and shall, on the approach of or to other vessels, be exhibited in sufficient time to prevent collision, in such manner as to make them most visible, and so that the green light shall not be seen on the port side nor the red light on the starboard side, nor, if practicable, more than two points abaft the beam on their respective sides.

(2) To make the use of these portable lights more certain and easy, the lanterns containing them shall each be painted outside with the colour of the light they respectively contain, and shall be provided with proper screens.

Canada Shipping Act—continued

Canal Boats in Tow of Steam Vessels

12. (1) Canal boats when in tow of steam vessels shall carry lights as follows:

- (a) Canal boats when towed astern of steam vessels and towed singly or tandem shall each carry a green light on the starboard side, a red light on the port side, and a small bright white light aft;
- (b) When canal boats are towed astern in one or more tiers, two or more abreast, the boat on the starboard side of each tier shall carry a green light on her starboard side and the boat on the port side of each tier shall carry a red light on her port side, and each of the outside boats in the last tier also shall carry a small bright white light aft;
- (c) When a canal boat is towed alongside and on the starboard side of a steam vessel, the boat towed shall carry a green light on the starboard side; and when towed on the port side of a steam vessel, the boat towed shall carry a red light on the port side;
- (d) When two canal boats are towed alongside of a steam vessel, one on the starboard side and the other on the port side, the starboard boat shall carry a green light on the starboard side and the port boat shall carry a red light on the port side.
- (e) When a tow of one or more canal boats is towed by being pushed ahead of a steam vessel such tow shall carry a green light on the starboard side and a red light on the port side so placed that they mark the tow at its maximum projection to starboard and port respectively, and may carry an amber light at the extreme forward end of the tow as near the centre line as it is practicable to carry such light. Such amber light shall be so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light ten points on each side, namely from right ahead to two points abaft the beam on either side, and of such a character as to be visible at a distance of at least three miles.

(2) The coloured side lights referred to in this Rule for canal boats in tow of steam vessels shall be so constructed as to show a uniform and unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on their respective sides, and of such a character as to be visible at a distance of at least two miles. The minimum size of glass globes shall be six inches in diameter and five inches high in the clear. The said coloured sidelights shall be fitted with inboard screens so as to prevent these lights from being seen across the bow.

(3) The small bright white light aft required to be carried on a canal boat in tow shall not be visible forward of the beam.

(4) The term "canal boat" as used in this Rule, includes barges, scows and other craft of nondescript type.

Vessels not under command

13. (1) A vessel over sixty-five feet in length which is not under command shall carry where they can best be seen and, if a steam vessel, in lieu of the white light required by Rule 3 (1) (a), two red lights in a vertical line one over the other not less than three feet apart, and of such a

Canada Shipping Act—continued

character as to be visible all around the horizon at a distance of at least two miles. Such vessel, when not making way through the water, shall not carry the side lights required by Rule 3 (1) (b) and (c), but when making way shall carry them.

(2) By day such vessel shall carry in a vertical line one over the other not less than three feet apart, where they can best be seen, two black balls, each two feet in diameter.

Vessels at anchor

14. (1) A vessel under one hundred and fifty feet register length, when at anchor, shall carry forward, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light constructed so as to show a clear, uniform and unbroken light visible all around the horizon at a distance of at least one mile.

(2) A vessel of one hundred and fifty feet or upward in register length, when at anchor, shall carry in the forward part of the vessel two white lights at the same height of not less than twenty and not exceeding forty feet above the hull, and not less than ten feet apart horizontally and athwartships, except that each need not be visible all around the horizon but so arranged that one or the other, or both, shall show a clear, uniform and unbroken light and be visible from any angle of approach at a distance of at least one mile; and at or near the stern of the vessel two similar lights, similarly arranged and at such a height that they shall be not less than fifteen feet lower than the forward lights. In addition to the four anchor lights above specified, at least one white decklight shall be displayed in every interval of one hundred feet along the deck measuring from the forward lights, said decklights to be not less than two feet above the deck and arranged, so far as intervening structures will permit, so as to be visible from any angle of approach.

(3) Between sunrise and sunset every vessel over sixty-five feet in length, when at anchor, shall carry forward, where it can best be seen, one black ball not less than two feet in diameter.

(4) A vessel over sixty-five feet in length, which is aground, shall carry by night the white light or lights prescribed for a vessel at anchor and in addition shall carry, where they can best be seen by approaching vessels, two red lights in a vertical line one over the other, not less than three feet apart, visible all around the horizon at a distance of at least two miles. By day such vessel shall carry in a vertical line one over the other not less than three feet apart, where they can best be seen, three black balls, each two feet in diameter.

Certain Naval or Military Vessels and Vessels not otherwise provided for

15. (1) Whenever it shall be determined to the satisfaction of the Minister of Transport that a naval or other military vessel of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to number, position, range, or arc of visibility of lights or shapes, such vessel shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes as shall have been determined by the Minister of Transport to be the closest possible compliance with these Rules in respect to that vessel; provided that notice of such noncompliance with the rules together with the character and positions of lights or shapes to be displayed on such vessel, shall be published by "Notice to Mariners".

Canada Shipping Act—continued

(2) Every vessel not otherwise provided for in these Rules, when under way, or at anchor, shall carry a white light forward. Such light shall be carried at least eight feet above the surface of the water, in a lantern so fixed and constructed as to show a clear, uniform and unbroken light all around the horizon, and of such a character as to be visible at a distance of at least one mile.

Rafts

16. (1) Rafts when under way, at anchor or moored shall carry lights as follows:—

- (a) A raft of one crib and not more than two in length shall carry one white light. A raft of three or more cribs in length and one crib in width shall carry one white light at each end of the raft. A raft of more than one crib abreast shall carry one white light on each outside corner of the raft, making four lights in all.
- (b) A bag or boom raft shall carry a bright white light at each end of the raft, and one of such lights on each side midway between the forward and after ends.

(2) The white lights required by these rules for rafts shall be carried in lanterns so fixed and constructed as to show clear, uniform and unbroken lights visible all around the horizon, and of such a character as to be visible at a distance of at least one mile. Such lights shall be carried at a height of not less than eight feet above the surface of the water.

Use of searchlights—Caution

17. No person shall direct the rays of a searchlight or other blinding light on the pilot house or navigating bridge of any vessel under way.

Fog Signals

18. (1) A steam vessel shall be provided with an efficient whistle, sounded by steam or by some substitute for steam, placed before the funnel not less than eight feet from the deck, or in such other place where the sound will not be intercepted by any obstruction, and of such a character as to be heard in ordinary weather at a distance of at least two miles, and with an efficient bell. A sailing vessel shall be provided with an efficient fog horn and with an efficient bell.

(2) In fog, mist, falling snow, or heavy rainstorms, or when visibility is low from any other cause, whether by day or by night, fog signals shall be used as follows:—

- (a) A steam vessel under way, excepting only a steam vessel with a raft in tow, shall sound at intervals of not more than one minute three distinct blasts of her whistle.
- (b) Every vessel in tow of another vessel shall, at intervals of not more than one minute, sound four strokes on a good and efficient and properly placed bell, by striking the bell twice in quick succession, followed by a little longer interval, and then again striking twice in quick succession (as in striking “four bells” to indicate time).
- (c) A steam vessel with a raft in tow shall sound at intervals of not more than one minute a screeching or Modoc whistle for from three to five seconds.

Canada Shipping Act—continued

- (d) A sailing vessel when under way and not in tow shall sound on the foghorn, at intervals of not more than one minute, when on the starboard tack one blast, when on the port tack two blasts in succession, when with the wind abaft the beam three blasts in succession.
- (e) A vessel at anchor and a vessel aground in or near a channel or fairway shall at intervals of not more than two minutes ring the bell rapidly for from three to five seconds and, in addition, at intervals of not more than three minutes shall sound on the whistle or horn a signal of one short blast, two long blasts, and one short blast in quick succession.
- (f) A vessel of less than ten tons register tonnage, not being a steam vessel, shall not be obliged to give the abovementioned signals, but if she does not she shall make some other efficient sound signal at intervals of not more than one minute.
- (g) Any vessel or raft not otherwise provided for in this Rule, when under way, anchored or moored, and not in port, shall make an efficient sound signal at intervals of not more than one minute.

Speed of ships to be moderate in fog

19. In fog, mist, falling snow or heavy rainstorms, or when visibility is low from any other cause, every vessel shall go at a moderate speed. A steam vessel hearing, apparently not more than four points from right ahead, the fog signal of another vessel shall at once reduce her speed to bare steerageway, and thereafter navigate with caution until the vessels shall have passed each other.

STEERING AND SAILING RULES

Preliminary

Risk of collision can, when circumstances permit, be ascertained by carefully watching the bearing of an approaching vessel. If the bearing does not appreciably change, such risk should be deemed to exist.

Sailing Vessels

20. When two sailing vessels are approaching one another so as to involve risk of collision one of them shall keep out of the way of the other, as follows:

- (1) A vessel which is running free shall keep out of the way of a vessel which is closehauled.
- (2) A vessel which is closehauled on the port tack shall keep out of the way of a vessel which is closehauled on the starboard tack.
- (3) When both are running free, with the wind on different sides, the vessel which has the wind on the port side shall keep out of the way of the other.
- (4) When both are running free, with the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.

Steam Vessels Meeting End On

21. (1) When two steam vessels are meeting end on, or nearly end on, so as to involve risk of collision, each shall alter her course to starboard, so that each shall pass on the port side of the other.

Canada Shipping Act—continued

(2) When steam vessels are meeting end on, or nearly end on, it shall be the duty of each steam vessel to pass on the port side of the other; and the pilot of either steam vessel may be first in determining to pursue this course, and thereupon shall give, as a signal of this intention, one distinct blast of his whistle, which the pilot of the other steam vessel shall answer promptly by a similar blast of his whistle and thereupon such steam vessels shall pass on the port side of each other. But if the courses of such steam vessels are so far on the starboard of each other as not to be considered by pilots as meeting end on, or nearly end on, the pilot so first deciding shall immediately give two distinct blasts of his whistle, which the pilot of the other steam vessel shall answer promptly by two similar blasts of his whistle, and they shall pass on the starboard side of each other.

Meeting in Rivers and Channels where there is a current

22. In all narrow channels where there is a current, and in the rivers Saint Mary, St. Clair, Detroit, Niagara, St. Lawrence and Ottawa, when two steam vessels are meeting, the descending steam vessel shall have the right of way, and shall before the vessels shall have arrived within the distance of one-half mile of each other, give the signal necessary to indicate the side on which she intends to pass.

Steam Vessels Crossing

23. (1) When two steam vessels are crossing so as to involve risk of collision the vessel which has the other on her own starboard side shall keep out of the way of the other.

(2) When two steam vessels are approaching each other at right angles or obliquely so as to involve risk of collision, other than when one steam vessel is overtaking another, the steam vessel which has the other on her own port side shall hold her course and speed; and the steam vessel which has the other on her own starboard side shall keep out of the way of the other by directing her course to starboard so as to cross the stern of the other steam vessel, or, if necessary to do so, slacken her speed or stop or reverse. The steam vessel having the other on her own port side shall blow one distinct blast of her whistle as a signal of her intention to cross the bow of the other, holding her course and speed, which signal shall be promptly answered by the other steam vessel by one distinct blast of her whistle as a signal of her intention to direct her course to starboard so as to cross the stern of the other steam vessel or otherwise keep clear.

(3) If from any cause whatever the conditions covered by this situation are such as to prevent immediate compliance with each other's signals, the misunderstanding or objection shall be at once made apparent by blowing the danger signal, and both steam vessels shall be stopped, and reversed if necessary, until signals for passing with safety are made and understood.

Steam and Sailing Vessels Approaching Each Other

24. When a steam vessel and a sailing vessel are proceeding in such directions as to involve risk of a collision the steam vessel shall keep out of the way of the sailing vessel.

Right of Way

25. Where, by any of these Rules, one of two vessels is required to keep out of the way, the other shall keep her course and speed.

Canada Shipping Act—continued*Duty to slacken speed or stop*

26. Every steam vessel which is directed by these Rules to keep out of the way of another vessel shall, on approaching such vessel, if necessary, slacken her speed or stop or reverse.

Overtaking Vessels

27. (1) Notwithstanding anything contained in these Rules every vessel overtaking any other shall keep out of the way of the overtaken vessel.

(2) When one steam vessel is overtaking another and the steam vessel astern shall desire to pass on the right or starboard side of the steam vessel ahead, she shall give one distinct blast of the whistle as a signal of such desire and, if the vessel ahead answers with one blast, she shall direct her course to starboard; or if she shall desire to pass on the left or port side of the vessel ahead, she shall give two distinct blasts of the whistle as a signal of such desire and, if the vessel ahead answers with two blasts, she shall direct her course to port; or if the vessel ahead does not think it safe for the vessel astern to pass at that time, she shall immediately signify the same by giving the danger signal of several short and rapid blasts of the whistle, not less than five. It shall then be the duty of the steam vessel astern to hold back and, after an appropriate interval, if she still desires to pass, to make the proper signal so indicating; but under no circumstances shall the steam vessel astern attempt to pass the steam vessel ahead until such time as they have reached a point where it can be safely done, and the steam vessel ahead shall signify her willingness by blowing the proper answering signal. The steam vessel ahead shall in no case attempt to cross the bow or crowd upon the course of the other steam vessel.

(3) Every vessel coming up with another vessel from any direction more than two points abaft her beam, that is, in such a position, with reference to the vessel which she is overtaking, that at night she would be unable to see either of that vessel's sidelights, shall be deemed to be an overtaking vessel, and no subsequent alteration of the bearing between the two vessels shall make the overtaking vessel a crossing vessel within the meaning of these Rules, or relieve her of the duty of keeping clear of the overtaken vessel until the overtaken vessel is finally passed and cleared.

(4) As the overtaking vessel cannot always know with certainty whether she is forward of or abaft this direction from the other vessel, she should, if in doubt, assume that she is an overtaking vessel and keep out of the way.

Narrow Channels

28. (1) In all channels less than five hundred feet in width, no steam vessel shall pass another going in the same direction unless the steam vessel ahead be disabled or signify her willingness that the steam vessel astern shall pass. Then the steam vessel astern may pass, subject, however, to the other rules applicable to such a situation.

(2) When steam vessels proceeding in opposite directions are about to meet in a channel less than five hundred feet in width, such steam vessels shall be slowed down to a moderate speed, according to the circumstances.

Signals indicating course

29. (1) In all weathers every steam vessel under way, in taking any course authorized or required by these Rules, shall indicate that course by

Canada Shipping Act—continued

a signal on her whistle, to be accompanied, whenever required, by a corresponding alteration of her course; and every steam vessel receiving a signal from another shall promptly respond with the same signal or sound the danger signal as provided in Rule 30.

(2) Except as otherwise provided in these Rules:

(a) One blast shall mean "I am directing my course to starboard".

(b) Two blasts shall mean "I am directing my course to port".

(3) These signals shall be used, not only when an alteration of course is required, but at all times before vessels approach within half a mile of each other, from whatever direction, if their courses will bring them within that distance from each other.

Danger Signal

30. If, when steam vessels are approaching each other, the pilot of either vessel fails to understand the course or intention of the other, whether from signals being given or answered erroneously, or from other causes, the pilot so in doubt shall immediately signify the same by giving the Danger Signal of several short and rapid blasts of the whistle, not less than five, and if both vessels shall have approached within half a mile of each other, both shall be immediately slowed to a speed barely sufficient for steerage-way and, if necessary, stopped and reversed, until the proper signals are given, answered and understood, or until the vessels shall have passed each other.

Cross Signals Prohibited

31. Pilots are forbidden to use what have become technically known as "cross signals", that is, answering one blast of the whistle with two, or two blasts with one. Whenever a pilot receives either of the whistle signals provided in Rule 29(2) and he deems it imprudent to comply with that signal, he shall immediately give the danger signal and observe the Rule applying thereto (Rule 30).

Approaching a short bend or curve in channel

32. Whenever a steam vessel is nearing a short bend or curve in the channel where, from the height of the banks or other cause, a steam vessel approaching from the opposite direction cannot be seen for a distance of half a mile, the pilot of such steam vessel, when he has arrived within half a mile of such bend or curve, shall give a blast of the whistle of at least eight seconds duration, which shall be answered by a similar blast given by the pilot of any approaching steam vessel within hearing on the other side and within half a mile of such bend or curve. Should such signal be so answered by a steam vessel upon the farther side of the bend or curve, then the usual signals for meeting and passing shall immediately be given and answered.

Leaving a Dock or Berth

33. When a steam vessel is leaving a dock or berth she shall give one blast of the whistle of at least eight seconds duration, which shall be answered by a similar blast given by any approaching steam vessel. Both vessels shall be governed by Rule 34 (Special Circumstances) until the course of the vessel leaving the dock or berth becomes apparent, after which time the applicable steering and sailing rules shall be observed.

Canada Shipping Act—continued*Special Circumstances*

34. In obeying and construing these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances which may render a departure from the above rules necessary in order to avoid immediate danger.

Neglect of Rules or Other Precautions

35. Nothing in these rules shall exonerate any vessel, or the owner or master or crew thereof, from the consequences of any neglect to carry lights or signals, or of any neglect to keep a proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Unnecessary Sounding of Whistle

36. No person shall authorize or permit unnecessary sounding of the whistle.

Distress Signals

37. When a vessel is in distress and requires assistance from other vessels or from the shore, the following shall be the signals to be used or displayed by her, either together or separately, viz:

(1) In the daytime:

- (a) A gun or other explosive signal fired at intervals of about a minute.
- (b) The distant signal, consisting of a square flag, having either above or below it a ball or some object resembling a ball.
- (c) Continuous sounding with any fog-signal apparatus.

(2) At night:

- (a) A gun or other explosive signal fired at intervals of about a minute.
- (b) Flames from the vessel (as from burning a tarbarrel, oilbarrel, etc.)
- (c) Rockets or shells, throwing stars of any colour or description, fired one at a time, at short intervals.
- (d) A continuous sounding with any fog-signal apparatus.

SUPPLEMENT

DIAGRAMS

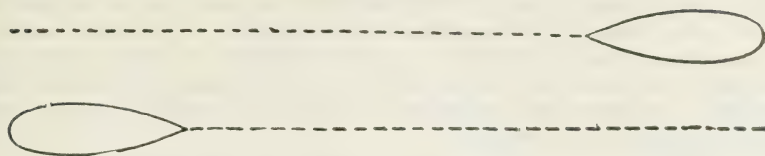
The following diagrams are intended to illustrate the steering and sailing rules:

First Situation

Here the two coloured lights visible to each will indicate their direct approach end on to each other. In this situation it is a standing rule that both shall direct their courses to starboard and pass on the port side of each other, each having previously given one distinct blast of the whistle.

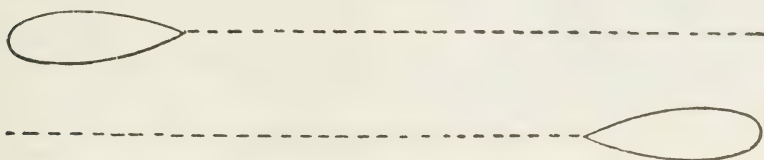
Canada Shipping Act—continued

Second Situation



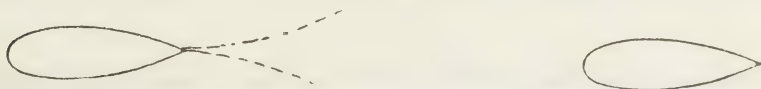
In this situation the red light only will be visible to each, the screens preventing the green lights from being seen. Both vessels are evidently passing to port of each other, which is permissible in this situation, each pilot having previously signified his intention by one distinct blast of the whistle.

Third Situation



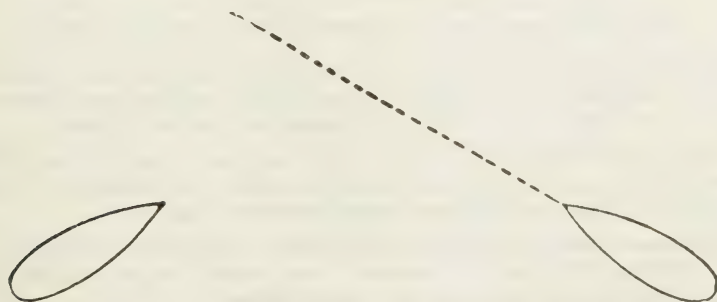
In this situation the green light only will be visible to each, the screens preventing the red light from being seen. They are therefore passing to starboard of each other, which is permissible in this situation, each pilot having previously signified his intention by two distinct blasts of the whistle.

Fourth Situation



In this situation one steam vessel is overtaking another steam vessel from some point more than two points abaft the beam of the overtaken steam vessel. The overtaking steam vessel may pass on the starboard or port side of the steam vessel ahead after the necessary signals for passing have been given, with assent of the overtaken steam vessel, as prescribed in Rule 27.

Fifth Situation



In this situation two steam vessels are approaching each other at right angles or obliquely in such manner as to involve risk of collision, other than where one steam vessel is overtaking another.

Canada Shipping Act—continued

The steam vessel which has the other on her own port side shall hold her course and speed, and the other shall keep clear by crossing astern of the steam vessel that is holding course and speed, or, if necessary to do so, shall slacken her speed or stop or reverse. Both steam vessels shall otherwise observe the provisions of Rules 29 and 30 with respect to the signals for passing and the danger signal.

Bell and Whistle Signals Between Bridge and Engine Room

When signals between bridge and engine room are made by bell or whistle they shall be given as follows:

1 stroke or 1 blast (when engines are stopped).....	Go Ahead
1 stroke or 1 blast (when engines are turning).....	Stop
2 strokes or 2 blasts	Go Astern
3 strokes or 3 blasts	Slow
4 strokes or 4 blasts	Full Speed
2 strokes or 2 blasts shall always mean "Go astern", irrespective of other signals previously given.	

Helm or Steering Orders

No person on any ship registered in Canada shall, when the ship is going ahead, give a helm or steering order containing the word "starboard" or "right", or any equivalent of "starboard" or "right", unless he intends that the head of the ship shall move to the right, or give a helm or steering order containing the word "port" or "left", or any equivalent of "port" or "left", unless he intends that the head of the ship shall move to the left. (Canada Shipping Act, 1934, section 454.)

39. Regulations for the River St. Lawrence from Father Point to Victoria Bridge at Montreal

P.C. 5365

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 25th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and under the authority of section 637 of the Canada Shipping Act, 1934, is pleased to order as follows:

1. The Regulations for the River St. Lawrence from Father Point to Victoria Bridge at Montreal, established by Order in Council P.C. 1120 of 19th May, 1931, as amended, are hereby revoked; and
2. The annexed "Regulations for the River St. Lawrence from Father Point to Victoria Bridge at Montreal" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued

REGULATIONS FOR THE RIVER ST. LAWRENCE FROM FATHER POINT TO VICTORIA
BRIDGE AT MONTREAL

1. Subject to Regulation 16, the following regulations extend and apply to the ports of Montreal and Quebec, including the harbours of Montreal, Three Rivers and Quebec, and including all the navigable waters of the river St. Lawrence lying between Victoria Bridge at Montreal and Father Point.

2. If any mark or aid to navigation placed within the limits hereinbefore mentioned to facilitate navigation or the business or purpose of His Majesty or if any dredge of His Majesty lying or in operation in the said waters, be removed, carried away or injured by any person or by any vessel or vehicle, such mark or aid to navigation or dredge shall be replaced, if possible, and any damage done shall be repaired or made good forthwith, if the removal or injury was caused by a vessel or vehicle, the owner, agent, consignee or master in charge of such vessel, or vehicle shall replace, repair or make good the damage, and in any other case the person causing the removal or injury. Unless the mark, or aid to navigation, or dredge is replaced, if that be possible, within forty-eight hours, the person liable to replace the same shall be deemed to have committed an offence against these regulations.

3. It is prohibited to injure, alter or make fast to any aid to navigation, and in the event of a breach of this regulation by any vessel, the master of such vessel shall be liable to the penalty hereinafter provided. Furthermore, where through unavoidable accident any aid to navigation has been displaced, the master of the vessel displacing the same shall give notice to the nearest agent of the Department of Transport and failure to give such notice shall be deemed to be a breach of these regulations.

4. A vessel shall be liable to His Majesty for any damage done by it to any aid to navigation, Ship Channel equipment, or any other property of His Majesty.

5. No person shall encumber navigable waters or in any way obstruct the navigation thereof with stones, filth, rubbish, timber, logs, spars, rafts or cribs, wrecks of steamers or other vessels; or throw therein, fuel oil, coal, ashes, cinders, hay, straw, ballast, or any other matter or thing by which the navigation may be impeded or injured; and a further like penalty to that which is hereinafter imposed for a breach of this regulation shall be incurred by any person guilty of such breach, if he does not remove or cause to be removed any such encumbrance or obstruction, within a reasonable time to the satisfaction of the Minister of Transport after being required to do so by any officer appointed for such purpose by the Minister, and a further like penalty shall be incurred for every subsequent day during which said encumbrance or obstructions are not removed.

6. No vessel while under way or drifting, shall trail her anchor.

7. No vessel drawing 9 feet of water or less, or no barge or raft whatsoever, shall—except in case of accident, or stress of weather, or force of current—use the deep water channels in the following portions of the River St. Lawrence:

(a) Near Pte. aux Trembles (en haut).

(b) At, between, or near Varennes, and Buoy 5-M St. Ours Traverse, except between Buoys 104-M. and 116-M., and also between Buoys 122-M. and 124-M.

Canada Shipping Act—continued

- (c) In Lake St. Peter between the upper end of the St. Francis Bank and the English bank.
- (d) At or near Port St. Francis.
- (e) At, between and near Batiscan and Cap Charles.
- (f) In the dredge channel below Quebec known as Madame Reef-Brule Bank Channel, between Buoys 120½B and 112B, except between Buoys 114¼B and 114B.
- (g) At or near Buoys 109½B, 109B and 108B.

8. All vessels drawing 9 feet of water or less or barges or rafts shall at all times keep to the proper side of the fairway and away from the established steamer track between Quebec and Father Point, except when crossing the steamer track at right angles.

9. All rafts descending the river, whether in tow of a steamer or otherwise shall:

- (a) Keep to the Northway of Ile Deslauriers or Laurette Island, and Ile Bellegarde, and—
- (b) When opposite to Ile au Raisin, Lake St. Peter, keep to the South of the Ship Channel, as far as Nicolet Traverse.

10. Vessels when passing dredges, wrecks, and tows of barges must not do so at greater than slow speed.

11. Every vessel overtaking another and intending to pass shall, at a distance of one-half mile from the other vessel, give one prolonged blast on her steam whistle, to which the other shall, if safe and practicable, reply by a similar signal, decrease her speed, to dead slow if necessary, and direct her course to port, and the overtaking vessel, upon arriving in close proximity to the overtaken vessel, shall also reduce her speed, maintaining only sufficient speed to enable her to pass the overtaken vessel to starboard. After having answered the prolonged blast of the overtaking vessel by a similar signal, if the overtaken vessel does not consider it safe and practicable to allow the other vessel to pass to starboard, she shall, after an interval of not less than one minute and not more than two minutes, give one short blast and direct her course to starboard, whereupon the overtaking vessel shall direct her course to port and pass accordingly.

12. All vessels navigating against the current, or tide on each occasion, before meeting another vessel at sharp turns, narrow passages, or where the navigation is intricate, shall stop, then, if necessary, come to a position of safety below or above the point of danger, and there remain until the channel is clear.

13. Vessels may not be towed unless the following conditions are complied with:

- (a) If canal barges, there shall not be more than 10 in number, 5 in length and 2 abreast.
- (b) If sand barges, there shall not be more than 6 in number, 3 in length, and 2 abreast.
- (c) If mixed vessels, there shall not be more than 8 in number, 4 in length, and 2 abreast.
- (d) A complete tow from stem of the tug to the stern of tow shall not exceed 1,000 feet in length.

Canada Shipping Act—continued

14. (1) A steam vessel when at anchor, shall, between sunrise and sunset, carry in the forward part of the vessel a black ball not less than two feet in diameter, and at or near the stern of the vessel, another such ball. The forward ball shall be carried at a height so as to be clear of the superstructure or other erections other than the funnel on the vessel, but in no case less than 20 feet above the hull, and the stern or after ball shall not be less than 15 feet lower than the forward ball. The above signals to be reversed in the event of a vessel anchored only by the stern.

(2) Every vessel anchoring with the stern anchor, shall notify the Signal Service at Quebec by wireless accordingly, who in turn notify all vessels.

15. Every person who commits a breach of these regulations shall be liable on summary conviction to a penalty not exceeding Forty Dollars and the costs of the conviction, and in default of payment of such penalty and costs shall be liable to imprisonment for a period not more than thirty days.

16. Regulations 9 and 11 shall apply only to that section of the River St. Lawrence lying between the Victoria Bridge at Montreal and the Western limits of the harbour of Quebec.

40. Tonnage measurement of ships—Schedule of fees

(1) The Schedule of Fees established by Order-in-Council P.C. 744 of 18th March, 1914, to which Measuring Surveyors of Shipping in Canada are entitled for measuring vessels for registry, will be cancelled on and from the 1st June, 1942.

(2) In pursuance of the powers conferred on the Minister of Transport by Section 103 of the Canada Shipping Act, 1934, the Minister hereby directs that Measuring Surveyors of Shipping shall be entitled to the following mentioned fees for the measurement of vessels for the purposes of registry:—

Tons gross	(a) Measurement under Rule I and Remeasurement of under-deck tonnage	(b) Measurement under Rule II	(c) Various measurements (see below)
50 tons and under.....	\$ 5.00	\$ 2.50	\$ 2.00
Over 50 tons and not exceeding 100 tons.....	10.00	5.00	4.00
For each additional 100 tons or part of 100 tons above 100 tons up to 20,000 tons.....	2.00	1.00	0.50
For each additional 100 tons or part of 100 tons above 20,000 tons.....	1.00	0.50	0.50

Minor Alterations

The fee for the inspection of minor alterations made in a ship e.g., of rig, engines, etc., is \$5.00.

Column "C"

The fees for remeasurement in consequence of alterations either on the upper deck or in the engine room of a ship or under Section 93 (2) or 94 (1) of the Canada Shipping Act, 1934, are set out in column (c) of the table above. Where remeasurement involves more than one of the four items of alterations referred to above, these fees are chargeable in respect of each

Canada Shipping Act—continued

of the items involved. In all cases the maximum fee for each item is \$25.00. The fee for remeasurement under Section 94 (1) (a) (i) of the Canada Shipping Act, 1934, covers the inspection of the crew spaces of the ship if such inspection is made at the same time as the remeasurement.

Rule II

In cases where a ship previously measured under Rule II is remeasured under Rule I, the full fee prescribed for measurement under Rule I, is chargeable.

Suez and Panama Canal Tonnage Certificates

The fee for the issue of either a Suez Canal Special Tonnage Certificate or a Panama Canal Special Tonnage Certificate is two-fifths of the full tonnage fee whether or not the measurement is made at the same time as the measurement for British tonnage. The same fee is payable for the issue of a further certificate consequent upon alterations. If the measurements for a Suez Canal Certificate and for a Panama Canal Certificate are made at the same time a fee of three-fifths of the full tonnage fee is chargeable for the issue of the two certificates. Either of these fees covers the remeasurement of the ship for British tonnage (except under-deck) if made at the same time but in no case is the fee to be less than the appropriate remeasurement fee shown above.

In any case where the issue of a Suez Canal Certificate or a Panama Canal Certificate in respect of a foreign ship involves measurement of the under-deck of the ship, the full tonnage fee is chargeable and if in such a case both a Suez Canal Certificate and a Panama Canal Certificate are required, the full tonnage fee plus two-fifths of this fee is chargeable.

Where the alteration is of a minor character involving very little work for the Surveyor, the Department will be prepared to consider an application for refund of part of the fee paid.

The fee for a certified copy of either a Suez Canal Certificate or a Panama Canal Certificate is \$2.00.

Copies

In special cases details of British tonnage calculations may be supplied to the owners on payment of a fee of \$2.00 per sheet, subject to a minimum charge of \$10.00.

Naval Vessels Transferred to Private Ownership

When trawlers and drifters built and measured for the Admiralty or Naval Service are transferred to private owners and are measured for the purpose of registration under the Canada Shipping Act, 1934, and alterations are found to have been made to the vessels affecting their tonnage, the fees in respect of the remeasurement are as laid down above. Where no such alterations have been made, a fee of \$2.00 is chargeable for the Surveyor's visit to the vessel and the issue of the necessary Certificate of Survey to the Registrar of Shipping at the intended port of registry.

Travelling Expenses

Every Measuring Surveyor of Shipping shall, when required to travel for the purpose of making any such measurement, be entitled to demand and receive from the person requiring his services the actual living and travelling expenses incurred by him, not to exceed the sum of 10 cents per mile actually and necessarily travelled by him for the purpose of making such measurement.

June, 1942.

Approved.

C. D. HOWE,

Acting Minister of Transport.

Canada Shipping Act—continued

41. Pilotage By-Laws

Under section 319 of the *Canada Shipping Act, 1934*, by-laws establishing rates of pilotage dues and regulating the service of pilots have been made by the local Pilotage Authority and confirmed by the Governor in Council for each pilotage district. The Pilotage Authorities are appointed by the Governor in Council under section 315 of the Act, but in a number of districts the Minister of Transport is the Pilotage Authority. A copy of the by-laws of the Pilotage Authority of any pilotage district may be obtained on application to the Secretary, Department of Transport, Ottawa.

42. Tariffs of Port Wardens' Fees

(1) Churchill, Manitoba

P.C. 1252

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 28th day of June, 1933.

PRESENT:

THE DEPUTY OF HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

The Deputy of His Excellency the Governor General in Council, on the recommendation of the Minister of Marine and pursuant to Section 889 of the *Canada Shipping Act, Chapter 186, R.S. 1927*, is pleased to make the following tariff of Port Warden's fees (which has been approved by Order in Council dated 16th September, 1927 (P.C. 1826) for the Port of Vancouver, B.C.) for the port of Churchill, Manitoba, and it is hereby made and established accordingly:

1. Survey of Hatches only and certificate \$ 8.00

2. Inward Cargo:

For complete inspection of hatches and cargo, including inspection of cargo on docks no matter how many surveys are necessarily made, and certificates (provided, however, that the Port Warden shall in no case receive more than \$8.00 per survey).

Where cargo does not exceed 1,000 tons	8.00
Where cargo assessed 1,000 tons but does not exceed 2,500 tons	16.00
Where cargo assessed 2,500 tons but does not exceed 3,500 tons	24.00
Where cargo assessed 3,500 tons	30.00

3. Outward Cargo:

(a) Lumber—for the inspection of full cargoes or part cargoes of lumber only (below and on deck) including inspection of vessels' holds before loading, and certificates (provided, however, that the Port Warden shall in no case receive more than \$8.00 per survey of the cargo):—

500,000 ft. B.M. and less	\$ 8.00
Over 500,000 ft. B.M. but not exceeding 1,500,000 ft. B.M.	15.00

Canada Shipping Act—continued

Over 1,500,000 ft. B.M. but not exceeding 2,500,000 ft. B.M.	20.00
Over 2,500,000 ft. B.M. but not exceeding 3,000,000 ft. B.M.	25.00
Over 3,000,000 ft. B.M.	30.00
(b) Grain—For the inspection of vessels intended to load and grain fittings, superintendence of vessels loading full cargoes or part cargoes of grain only, including certificates (provided, however, that the Port Warden shall in no case receive more than \$10.00 per survey):—	
1,000 tons and less	\$10.00
Over 1,000 tons but not exceeding 2,000 tons	20.00
Over 2,000 tons but not exceeding 3,000 tons	30.00
Over 3,000 tons but not exceeding 5,000 tons	40.00
Over 5,000 tons	50.00
Where a vessel loads in excess of 5,000 tons of grain and complete balance of cargo with lumber, the fee will be \$50.00 for complete survey and certificate.	
(c) General.	
For the survey of general cargoes including parcels of grain and lumber, and inspection of vessel's holds before loading and certificate (provided, however, that the Port Warden shall in no case receive more than \$8.00 per survey of cargo).	
500 tons and less	\$ 8.00
Over 500 tons but not exceeding 1,500 tons	13.00
Over 1,500 tons but not exceeding 2,500 tons	18.00
Over 2,500 tons but not exceeding 3,500 tons	23.00
Over 3,500 tons but not exceeding 4,500 tons	28.00
Over 4,500 tons	30.00
Where vessel carries 5,000 tons of grain or over, in addition to lumber and general cargo, an additional fee of \$10.00 may be charged.	

4. Tonnage:

Tonnage will be computed on the following basis:

General Cargo on basis of vessels' revenue tons.

Grain on basis of 2,240 pounds.

Lumber and Logs with general cargo, on basis of one and one-half ($1\frac{1}{2}$) tons to 1,000 feet Board Measure.

Revenue Tons i.e., Weight and/or Measurement.

5. Except as otherwise provided, for surveys and certificates thereof, by the Port Warden and his Assistant, of the hull, spars or rigging of any vessel or on damaged goods, a fee of \$8.00 and a further sum of \$5.00 payable to each shipwright or other skilled person employed by him, will be allowed.
6. Except as otherwise provided, for every valuation of a vessel for average, and every inspection of a vessel intending to load, including certificates—
- | | |
|--|---------|
| (a) For a vessel not exceeding 500 tons a fee of | \$ 5.00 |
| (b) For a vessel 501 tons and not exceeding 700 tons | 7.50 |
| (c) For a vessel 701 tons or over | 10.00 |

Canada Shipping Act—continued

7. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade.

(a) Providing the value of the thing or amount in dispute does not exceed \$500.00, a fee of	\$10.00
(b) If exceeding \$500.00 a fee of	20.00

N. A. ROBERTSON,
Clerk of the Privy Council.

(2) Port Arthur, Ontario

P. C. 1299

AT THE GOVERNMENT HOUSE AT OTTAWA

SATURDAY, the 5th day of June, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS, in accordance with subsection 1 of section 635 of the Canada Shipping Act, 1934, the Chamber of Commerce of Port Arthur, Ontario, has established a tariff of fees to be paid to the Port Warden at that place for services performed by him and his deputies by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed, namely, as follows:—

TARIFF OF FEES

1. Survey of hatches and certificate \$ 8.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate 8.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—

Under 1,000 tons gross	8.00
Over 1,000 tons gross	16.00
4. Valuation of a vessel for average—

Under \$10,000 value	8.00
\$10,000 value and under \$50,000 value	16.00
\$50,000 value and upwards	24.00
5. For complete inspection of vessel intending to load and certificate 8.00
6. Grain ships—

Part cargoes complete survey and certificate	8.00
Full cargoes complete survey and certificate	16.00
7. For complete survey of timber deck cargoes and certificate . . 10.00
8. Extra copies of certificate under seal 2.50

Canada Shipping Act—continued

9. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Chamber of Commerce,

- (a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of 10.00
- (b) If exceeding \$500, a fee of 20.00

Now, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and in pursuance of the provisions of subsection 1 of section 635 of the Canada Shipping Act, is pleased to approve and doth hereby approve the tariff of fees established by the Chamber of Commerce of Port Arthur, Ontario, as above set forth.

N. A. ROBERTSON,
Clerk of the Privy Council.

(3) Fort William, Ontario

P. C. 1496

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 24th day of June, 1937.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS, in accordance with subsection 1 of section 635 of the Canada Shipping Act, 1934, the Chamber of Commerce of Fort William, Ontario, has established the following tariff of fees to be paid to the Port Warden at that place for services performed by him and his deputies by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed, namely:—

TARIFF OF FEES

1. Survey of hatches and certificate \$ 8.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit including certificate 8.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate
 - Under 1,000 tons gross 8.00
 - Over 1,000 tons gross 16.00
4. Valuation of a vessel for average
 - Under \$10,000 value 8.00
 - \$10,000 value and under \$50,000 value 16.00
 - \$50,000 value and upwards 24.00
5. For complete inspection of vessel intending to load and certificate 8.00
6. Grain ships—
 - Part cargoes complete survey and certificate 8.00
 - Full cargoes complete survey and certificate 16.00

Canada Shipping Act—continued

7. For complete survey of timber deck cargoes and certificate .. 10.00
8. Extra copies of certificate under seal 2.50
9. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Chamber of Commerce.
 - (a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of 10.00
 - (b) If exceeding \$500, a fee of 20.00

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and in pursuance of the provisions of subsection 1 of section 635 of the Canada Shipping Act, is pleased to approve and doth hereby approve the tariff of fees as established by the Chamber of Commerce of Fort William, Ontario, as above set forth.

N. A. ROBERTSON,
Clerk of the Privy Council.

(4) Yarmouth, Nova Scotia

P.C. 3204

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 22nd day of December, 1938.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS, in accordance with the provisions of section 635 of the Canada Shipping Act, 1934, the Council of the Board of Trade of Yarmouth, N.S., by a resolution passed on November 8, 1938, established a tariff of fees to be paid to the Port Warden at the harbour of Yarmouth, for services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed, namely, as follows:—

1. Survey of hatches and certificate \$ 8.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate 8.00
3. Survey of vessel for damage or defects or arriving in distress with certificate
 - Under 1,000 tons gross.. 8.00
 - Over 1,000 tons gross.. 16.00
4. Valuation of a vessel for average—
 - Under \$10,000 value.. 8.00
 - \$10,000 value and under \$50,000 value.. 16.00
 - \$50,000 value and upwards.. 24.00
5. For complete inspection of vessel intending to load and certificate.. 8.00
6. Grain ships—
 - Part cargoes complete survey and certificate 8.00
 - Full cargoes complete survey and certificate 16.00

Canada Shipping Act—continued

7. For complete survey of timber deck cargoes and certificate. . 10.00
8. Extra copies of certificate under seal. 2.50
9. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance:
- (a) Providing the value of the thing or amount in dispute does not exceed \$500.00, a fee of. 10.00
- (b) If exceeding \$500.00, a fee of. 20.00

AND WHEREAS the Minister of Transport reports that the said tariff of fees has been examined by the Officers of the Department of Transport and considered satisfactory;

Now, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve and doth hereby approve the said Tariff of Fees, as above set out, established by the Council of the Board of Trade of Yarmouth, N.S.

N. A. ROBERTSON,
Clerk of the Privy Council.

(5) Prince Rupert, British Columbia

P.C. 1117

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 19th day of March, 1948.

PRESENT:**HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL**

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following tariff of Port Warden's fees for the Port of Prince Rupert, B.C. and it is hereby approved in substitution for the tariff of fees approved by Order in Council of the 6th of June, 1928 (P.C. 904):

INWARD CARGO*Hatch Survey*

When Hatch Survey only made and Certificate issued. \$10.00

(Note: Hatch Survey includes survey of cargo in sight only.) If further survey required in addition to Hatch Survey as above, for combined survey of hatches and of cargo in the ship or on the dock:

500 tons or less	\$15.00
501 tons to 1,000 tons	20.00
1,001 tons to 1,500 tons	25.00
1,501 tons to 2,000 tons	30.00
2,001 tons to 2,500 tons	35.00
2,501 tons to 3,000 tons	40.00
3,001 tons to 4,000 tons	45.00
4,001 tons to 5,000 tons	50.00
5,001 tons and over	60.00

Canada Shipping Act—continued

OUTWARD CARGO

For the inspection of vessels and fittings prior to loading, superintendence of loading and certification, all cargoes part or full, the following charges to be made:

- (a) For survey of one or two holds, bilges, etc., prior to loading, including Certificate of Readiness to Load, if required, the fee shall be \$10.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load regardless of the number of visits made by Port Warden.)

- (b) For survey of three or more holds, bilges, etc., prior to loading, including Certificate of Readiness to load, if required, the fee shall be \$20.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load, regardless of the number of visits made by Port Warden.)

Port Warden at Prince Rupert to accept Certificate of Readiness to Load issued by the Port Warden at any other British Columbia port provided the vessel has remained in inside waters in the interim between the issuance of the Certificate of Readiness by the Port Warden at the first British Columbia port and the time of arrival of the vessel at Prince Rupert.

- (c) For Timber Deck Cargo Survey only and certificate covering same, regardless of quantity of such Deck Cargo \$25.00

- (d) When Port Warden surveys the under deck cargo and the vessel also loads a deck cargo, no additional fee shall be charged for the deck cargo. Combined Tonnage of deck and under deck cargo shall be charged on tonnage basis as per Paragraph (e) with a minimum charge of.. \$25.00

- (e) Port Warden's fees on all outward cargo, except Timber Deck Cargoes, as per Paragraph (c) shall be as follows:

500 tons or less	\$10.00
501 tons but not exceeding 1,000 tons	15.00
1,001 tons but not exceeding 1,500 tons	20.00
1,501 tons but not exceeding 2,000 tons	25.00
2,001 tons but not exceeding 2,500 tons	30.00
2,501 tons but not exceeding 3,000 tons	35.00
3,001 tons but not exceeding 4,000 tons	40.00
4,001 tons but not exceeding 5,000 tons	50.00
5,001 tons and over	60.00

NOTE: Survey of holds, bilges, etc., prior to loading as per Paragraphs (a). and (b) are additional to charges on tonnage as above.

Canada Shipping Act—continued

TONNAGE—*will be computed on the following basis—*

Lumber, logs or piles on a basis of one and one-half ($1\frac{1}{2}$) tons per thousand feet, board measure.

Grain, on a basis of 2,240 lbs. per ton:

General Cargo, weight or measurement as per ship's manifest.

(f) For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade:—

(a) Providing the value of the thing or amount in dispute does not exceed \$500.00, a fee of. \$10.00

(b) If exceeding \$500.00 20.00

(g) Between 6 P.M. and 8 A.M. daily, and all day Sunday and holidays, if the Port Warden is required to inspect and/or complete a survey of ship, an extra charge of \$5.00 will be made.

N. A. ROBERTSON,

Clerk of the Privy Council.

(6) Victoria, British Columbia

P.C. 1118

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 19th day of March, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following tariff of Port Warden's fees for the Port of Victoria, B.C., and it is hereby approved in substitution for the tariff of fees approved by Order in Council of the 8th November, 1928 (P.C. 2040):

INWARD CARGO**Hatch Survey**

When Hatch Survey only made and Certificate issued.... \$10.00

(Note: Hatch Survey includes survey of cargo in sight only.) If further survey required in addition to Hatch Survey as above, for combined survey of hatches and of cargo in the ship or on the dock:

500 tons or less	\$15.00
501 tons to 1,000 tons	20.00
1,001 tons to 1,500 tons	25.00
1,501 tons to 2,000 tons	30.00
2,001 tons to 2,500 tons	35.00
2,501 tons to 3,000 tons	40.00
3,001 tons to 4,000 tons	45.00
4,001 tons to 5,000 tons	50.00
5,001 tons and over	60.00

Canada Shipping Act—continued

OUTWARD CARGO

For the inspection of vessels and fittings prior to loading, superintendence of loading and certification, all cargoes part or full, the following charges to be made:

- (a) For survey of one or two holds, bilges, etc., prior to loading, including Certificate of Readiness to load, if required, the fee shall be..... \$10.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load regardless of the number of visits made by Port Warden.)

- (b) For survey of three or more holds, bilges, etc., prior to loading, including Certificate of Readiness to load, if required, the fee shall be..... \$20.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load, regardless of the number of visits made by Port Warden.)

Port Warden at Victoria to accept Certificate of Readiness to Load issued by the Port Warden at any other British Columbia port provided the vessel has remained in inside waters in the interim between the issuance of the Certificate of Readiness by the Port Warden at the first British Columbia port and the time of arrival of the vessel at Victoria.

- (c) For Timber Deck Cargo Survey only and Certificate covering same, regardless of quantity of such Deck Cargo \$25.00

- (d) When Port Warden surveys the under deck cargo and the vessel also loads a deck cargo, no additional fee shall be charged for the deck cargo. Combined Tonnage of deck and under deck cargo shall be charged on tonnage basis as per Paragraph (e) with a minimum charge of.. \$25.00

- (e) Port Warden's Fees on all outward cargo, except Timber Deck Cargoes, as per Paragraph (c) shall be as follows:

500 tons or less	\$10.00
501 tons but not exceeding 1,000 tons	15.00
1,001 tons but not exceeding 1,500 tons	20.00
1,501 tons but not exceeding 2,000 tons	25.00
2,001 tons but not exceeding 2,500 tons	30.00
2,501 tons but not exceeding 3,000 tons	35.00
3,001 tons but not exceeding 4,000 tons	40.00
4,001 tons but not exceeding 5,000 tons	50.00
5,001 tons and over	60.00

NOTE: Survey of holds, bilges, etc., prior to loading as per Paragraphs (a) and (b) are additional to charges on tonnage as above.

Canada Shipping Act—continued

Tonnage—will be computed on the following basis—

Lumber, Logs or Piles on a basis of one and one-half ($1\frac{1}{2}$) tons per thousand feet, board measure:

Grain, on a basis of 2,240 lbs. per ton:

General Cargo, weight or measurement as per ship's manifest.

(f) For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade.

(a) Providing the value of the thing or amount in dispute does not exceed \$500.00, a fee of.. \$10.00

(b) If exceeding \$500.00..... \$20.00

(g) Between 6 P.M. and 8 A.M. daily, and all day Sunday and holidays, if the Port Warden is required to inspect and/or complete a survey of ship, an extra charge of \$5.00 will be made.

N. A. ROBERTSON,
Clerk of the Privy Council.

(7) Vancouver, British Columbia

P.C. 1119

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 19th day of March, 1948.

PRESENT:**HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL**

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following tariff of Port Warden's fees for the Port of Vancouver, B.C., and it is hereby approved in substitution for the tariff of fees approved by Order in Council of the 16th September, 1927 (P.C. 1826):

INWARD CARGO*Hatch Survey*

When Hatch Survey only made and Certificate issued.... \$10.00

(Note: Hatch Survey includes survey of cargo in sight only.) If further survey required in addition to Hatch Survey as above, for combined survey of hatches and of cargo in the ship or on the dock:

500 tons or less	\$15.00
501 tons to 1,000 tons	20.00
1,001 tons to 1,500 tons	25.00
1,501 tons to 2,000 tons	30.00
2,001 tons to 2,500 tons	35.00
2,501 tons to 3,000 tons	40.00
3,001 tons to 4,000 tons	45.00
4,001 tons to 5,000 tons	50.00
5,001 tons and over	60.00

Canada Shipping Act—continued

OUTWARD CARGO

For the inspection of vessels and fittings prior to loading, superintendence of loading and certification, all cargoes part or full, the following charges to be made:

- (a) For survey of one or two holds, bilges, etc., prior to loading, including Certificate of Readiness to Load, if required, the fee shall be \$10.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load regardless of the number of visits made by Port Warden.)

- (b) For survey of three or more holds, bilges, etc., prior to loading, including Certificate of Readiness to Load, if required, the fee shall be \$20.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load, regardless of the number of visits made by Port Warden.)

Port Warden at Vancouver to accept Certificate of Readiness to Load issued by the Port Warden at any other British Columbia port provided the vessel has remained in inside waters in the interim between the issuance of the Certificate of Readiness by the Port Warden at the first British Columbia port and the time of arrival of the vessel at Vancouver.

- (c) For Timber Deck Cargo Survey only and Certificate covering same, regardless of quantity of such Deck Cargo \$25.00

- (d) When Port Warden surveys the under deck cargo and the vessel also loads a deck cargo, no additional fee shall be charged for the deck cargo. Combined Tonnage of deck and under deck cargo shall be charged on tonnage basis as per Paragraph (e) with a minimum charge of... \$25.00

- (e) Port Warden's Fees on all outward cargo, except Timber Deck Cargoes, as per Paragraph (c) shall be as follows:

500 tons or less	\$10.00
501 tons but not exceeding 1,000 tons	15.00
1,001 tons but not exceeding 1,500 tons	20.00
1,501 tons but not exceeding 2,000 tons	25.00
2,001 tons but not exceeding 2,500 tons	30.00
2,501 tons but not exceeding 3,000 tons	35.00
3,001 tons but not exceeding 4,000 tons	40.00
4,001 tons but not exceeding 5,000 tons	50.00
5,001 tons and over	60.00

NOTE: Survey of holds, bilges, etc., prior to loading as per Paragraphs (a) and (b) are additional to charges on tonnage as above.

Canada Shipping Act—continued

TONNAGE—will be computed on the following basis—

Lumber, Logs or Piles on a basis of one and one-half ($1\frac{1}{2}$) tons per thousand feet, board measure:

Grain, on a basis of 2,240 lbs. per ton:

General Cargo, weight or measurement as per ship's manifest.

- (f) For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade:—

(a) Providing the value of the thing or amount in dispute does not exceed \$500.00, a fee of..... \$10.00

(b) If exceeding \$500.00..... \$20.00

- (g) Between 6 P.M. and 8 A.M. daily, and all day Sunday and holidays, if the Port Warden is required to inspect and/or complete a survey of ship, an extra charge of \$5.00 will be made.

N. A. ROBERTSON,
Clerk of the Privy Council.

(8) New Westminster, British Columbia

P.C. 1120

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 19th day of March, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following tariff of Port Warden's fees for the Port of New Westminster, B.C., and it is hereby approved in substitution for the tariff of fees approved by Order in Council of the 30th June, 1928 (P.C. 1139):

INWARD CARGO**Hatch Survey**

When Hatch Survey only made and Certificate issued... \$10.00

(Note: Hatch Survey includes survey of cargo in sight only.) If further survey required in addition to Hatch Survey as above, for combined survey of hatches and of cargo in the ship or on the dock:

500 tons or less	\$15.00
501 tons to 1,000 tons	20.00
1,001 tons to 1,500 tons	25.00
1,501 tons to 2,000 tons	30.00
2,001 tons to 2,500 tons	35.00
2,501 tons to 3,000 tons	40.00
3,001 tons to 4,000 tons	45.00
4,001 tons to 5,000 tons	50.00
5,001 tons and over	60.00

Canada Shipping Act—continued

OUTWARD CARGO

For the inspection of vessels and fittings prior to loading, superintendence of loading and certification, all cargoes part or full, the following charges to be made:

- (a) For survey of one or two holds, bilges, etc., prior to loading, including Certificate of Readiness to Load, if required, the fee shall be..... \$10.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load, regardless of the number of visits made by Port Warden).

- (b) For survey of three or more holds, bilges, etc., prior to loading, including Certificate of Readiness to Load, if required, the fee shall be..... \$20.00
plus the charge on outward tonnage loaded as per Paragraph (e).

(The above includes preliminary inspection of holds, bilges and final certification of Readiness to Load, regardless of the number of visits made by Port Warden).

Port Warden at New Westminster, to accept Certificate of Readiness to Load issued by the Port Warden at any other British Columbia port provided the vessel has remained in inside waters in the interim between the issuance of the Certificate of Readiness by the Port Warden at the first British Columbia port and the time of arrival of the vessel at New Westminster.

- (c) For Timber Deck Cargo Survey only and Certificate covering same, regardless of quantity of such Deck Cargo..... \$25.00

- (d) When Port Warden surveys the under deck cargo and the vessel also loads a deck cargo, no additional fee shall be charged for the deck cargo. Combined Tonnage of deck and under deck cargo shall be charged on tonnage basis as per Paragraph (e) with a minimum charge of.. \$25.00

- (e) Port Warden's fees on all outward cargo, except Timber Deck Cargoes, as per Paragraph (c) shall be as follows:

500 tons or less	\$10.00
501 tons but not exceeding 1,000 tons	15.00
1,001 tons but not exceeding 1,500 tons	20.00
1,501 tons but not exceeding 2,000 tons	25.00
2,001 tons but not exceeding 2,500 tons	30.00
2,501 tons but not exceeding 3,000 tons	35.00
3,001 tons but not exceeding 4,000 tons	40.00
4,001 tons but not exceeding 5,000 tons	50.00
5,001 tons and over	60.00

NOTE: Survey of holds, bilges, etc., prior to loading as per Paragraphs (a) and (b) are additional to charges on tonnage as above.

Canada Shipping Act—continued

TONNAGE—*will be computed on the following basis—*

Lumber, Logs or Piles on a basis of one and one-half ($1\frac{1}{2}$) tons per thousand feet, board measure:

Grain, on a basis of 2,240 lbs. per ton:

General cargo, weight or measurement as per ship's manifest.

(f) For the hearing and settling disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade:—

(a) Providing the value of the thing or amount in dispute does not exceed \$500.00 a fee of.. \$10.00

(b) If exceeding \$500.00..... \$20.00

(g) Between 6 P.M. and 8 A.M. daily, and all day Sunday and holidays, if the Port Warden is required to inspect and/or complete a survey of ship, an extra charge of \$5.00 will be made.

N. A. ROBERTSON,
Clerk of the Privy Council.

(9) Halifax, Nova Scotia

P.C. 1145

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 19th day of March, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following tariff of Port Warden's fees for the Port of Halifax, N.S., and it is hereby approved in substitution for the tariff of fees approved by Order in Council of the 9th December, 1936 (P.C. 3120):

TARIFF OF FEES

1. Survey of hatches and certificate.....	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 tons gross	10.00
Over 1,000 tons gross	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value ...	20.00
\$50,000 value and upwards	30.00

Canada Shipping Act—continued

5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. For complete survey of timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance and for the fees on appeal to the council of the Board of Trade:—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of.....	\$12.50
(b) If exceeding \$500, a fee of.....	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

(10) Three Rivers, Quebec

P.C. 2125

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 11th day of May, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS The Chamber of Commerce of Three Rivers, P.Q., has, on April 7, 1948, established a new tariff of fees, as set out hereunder, to be paid to the Port Warden of the harbour of Three Rivers for services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed:

1. Survey of hatches and certificate	\$ 10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate.....	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate	
Under 1,000 tons gross	10.00
Over 1,000 tons gross	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value.....	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessels intending to load and certificate	10.00

Canada Shipping Act—continued**6. Grain ships—**

Part cargoes complete survey and certificate.....	10.00
Full cargoes complete survey and certificate.....	20.00

7. For complete survey of timber deck cargoes and certificate 12.50

8. Extra copies of certificate under seal 3.00

9. For the hearing and settling disputes of which the Port Warden is authorized to take cognizance:

(a) providing the value of the thing or amount in dispute does not exceed \$500, a fee of..... 12.50

(b) if exceeding \$500, a fee of 25.00

Now, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, chapter 44, 24-25 George V, is pleased to approve and doth hereby approve the said tariff of Port Warden's fees for the Port of Three Rivers, P.Q., established by the Chamber of Commerce of Three Rivers on April 7, 1948.

N. A. ROBERTSON,
Clerk of the Privy Council.

(11) St. Andrews, New Brunswick

P.C. 2641

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 10th day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of subsection 2 of section 635 of The Canada Shipping Act, 1934, 24-25 George V, Chapter 44, is pleased to order and doth hereby order that the following tariff of fees shall be the tariff of fees to be paid to the Port Warden for the Harbour of St. Andrews, New Brunswick, for the services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed:

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00

Canada Shipping Act—continued

4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	
	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. Complete survey timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

(12) Pugwash, Nova Scotia

P.C. 2642

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 10th day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, and pursuant to the provisions of subsection 2 of section 635 of The Canada Shipping Act, 1934, 24-25 George V, Chapter 44, is pleased to order as follows:

1. The tariff of fees to be paid to the Port Warden for the harbour of Pugwash, Nova Scotia, established by Order in Council P.C. 1447 of 24th June, 1938, is hereby revoked; and

2. The following tariff of fees to be paid to the said Port Warden, for services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the Port Warden are required to be performed, is hereby made and established in substitution for the tariff of fees hereby revoked:

1. Survey of hatches and certificate.....	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00

Canada Shipping Act—continued

3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. Complete survey timber deck cargoes and certificate ..	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

**(13) Charlottetown, Prince Edward Island, Sydney, Nova Scotia and
Parrsboro, Nova Scotia**

P.C. 2643

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 10th day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of The Canada Shipping Act, 1934, 24-25, George V, chapter 44, is pleased to order as follows:

1. The tariffs of fees payable to the Port Wardens for the harbours of Charlottetown, Prince Edward Island, and Sydney and Parrsboro,

Canada Shipping Act—continued

Nova Scotia, approved by Orders in Council P.C. 479 of 9th March, 1937, P.C. 58 of 12th January, 1938, and P.C. 2170 of 8th September, 1937, respectively, are hereby revoked; and

2. The following tariff of fees, being the tariff of fees to be paid to the Port Wardens for the harbours of Charlottetown, Prince Edward Island, Sydney, Nova Scotia and Parrsboro, Nova Scotia, for services performed by the Port Wardens and their deputies, by the masters or owners of ships in respect of which the duties of the said Port Wardens are required to be performed, as established by the Councils of the Boards of Trade at the said harbours, is hereby approved, namely:

Port Warden—Tariff of Fees

Charlottetown, P.E.I., Sydney, N.S., and Parrsboro, N.S.

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. Complete survey timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued**(14) Dalhousie, New Brunswick**

P.C. 2734

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 17th day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The tariff of fees to be paid to the Port Warden for the harbour of Dalhousie, New Brunswick, established by Order in Council P.C. 187 of 29th January, 1937, is hereby revoked; and

2. The following tariff of fees, established by the Council of the Board of Trade of Dalhousie, as the tariff of fees to be paid to the Port Warden for the harbour of Dalhousie, New Brunswick, for services performed by him and his deputies by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed, is hereby approved:

Tariff of Fees

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. For complete survey of timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued

(15) Louisburg, Nova Scotia

P.C. 2735

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 17th day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The tariff of fees to be paid to the Port Warden for the harbour of Louisburg, Nova Scotia, established by Order in Council P.C. 844 of 17th April, 1937, is hereby revoked; and

2. The following tariff of fees, established by the Council of the Board of Trade of Louisburg, as the tariff of fees to be paid to the Port Warden for the harbour of Louisburg, Nova Scotia, for services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed, is hereby approved:

Tariff of Fees

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. Complete survey timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—continued**(16) Pictou, Nova Scotia**

P.C. 2783

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 22nd day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of The Canada Shipping Act, 1934, 24-25 George V, chapter 44, is pleased to approve and doth hereby approve the following tariff of fees established by the Council of the Pictou Board of Trade, as the tariff of fees to be paid to the Port Warden for the harbour of Pictou, Nova Scotia, for services performed by him and his deputies, by the masters or owners of ships in respect of which the duties of the said Port Warden are required to be performed:

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. Complete survey timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Board of Trade—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—*continued*

(17) Sorel, Quebec

P.C. 4064

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 15th day of September, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of The Canada Shipping Act 1934, 24-25 George V, chapter 44, is pleased to order as follows:

1. The tariff of fees to be paid to the Port Warden for the harbour of Sorel, P.Q., approved by Order in Council P.C. 829 of 15th April, 1937, is hereby revoked; and

2. The following tariff of fees established by the Council of the Chamber of Commerce of Sorel, as the tariff of fees to be paid to the Port Warden for the harbour of Sorel, P.Q., for services performed by him and his deputies, by the masters and owners of ships in respect of which the duties of the said Port Warden are required to be performed, is hereby approved:

Tariff of Fees

1. Survey of hatches and certificate	\$10.00
2. Every survey when requested of cargo on board ship, in shed, or on dock, per visit, including certificate..	10.00
3. Survey of vessel for damage or defects or arriving in distress, with certificate—	
Under 1,000 gross tons	10.00
Over 1,000 gross tons	20.00
4. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
5. For complete inspection of vessel intending to load and certificate	10.00
6. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate ..	20.00
7. For complete survey of timber deck cargoes and certificate	12.50
8. Extra copies of certificate under seal	3.00
9. For the hearing of disputes, and settlement of disputes of which the Port Warden is authorized to take cognizance, and for the fees on appeal to the Council of the Chamber of Commerce:	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00

N. A. ROBERTSON,
Clerk of the Privy Council.

Canada Shipping Act—concluded**(18) Saint John, New Brunswick**

P.C. 5243

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and pursuant to the provisions of section 635 of the Canada Shipping Act, 1934, is pleased to approve the following consolidation of the Tariff of Port Warden's Fees to be paid to the Port Warden at the harbour of Saint John, New Brunswick, and it is hereby approved and established in substitution for the tariff of fees approved by Order in Council P.C. 1376 of 6th April 1948, as amended:

1. Survey of hatches and certificates	\$10.00
2. Survey of vessels for damage or defects or arriving in distress, with certificate—	
Under 1,000 tons gross	10.00
Over 1,000 tons gross	20.00
3. Valuation of a vessel for average—	
Under \$10,000 value	10.00
\$10,000 value and under \$50,000 value	20.00
\$50,000 value and upwards	30.00
4. For complete inspection of vessel intending to load and certificate	10.00
5. Grain ships—	
Part cargoes complete survey and certificate ..	10.00
Full cargoes complete survey and certificate	20.00
Full cargoes-additional fee if the services of a Deputy Port Warden are required	20.00
6. For complete survey of timber deck cargoes and certificate	12.50
7. Extra copies of certificate under seal	3.00
8. For the hearing and settling of disputes of which the Port Warden is authorized to take cognizance—	
(a) Providing the value of the thing or amount in dispute does not exceed \$500, a fee of	12.50
(b) If exceeding \$500, a fee of	25.00
9. Inspection of live-stock shipments	10.00

N. A. ROBERTSON,
Clerk of the Privy Council.

SHOP CARDS REGISTRATION ACT, 1938. (1938, c. 41)

Regulations under The Shop Cards Registration Act

P.C. 1760

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 26th day of July, 1938.

PRESENT:

HIS EXCELLENCY THE ADMINISTRATOR IN COUNCIL

WHEREAS Section 12 of the Act intituled "An Act respecting the Registration of Shop Cards by Labour Unions", hereinafter described as "The Shop Cards Registration Act, 1938", is as follows:

"The Governor in Council may make regulations deemed expedient for carrying into effect the objects of this Act and in particular with respect to the following matters:—

- (a) the form of Register of Shop Cards and of the indexes thereto which are to be maintained pursuant to this Act and of the entries to be made therein;
- (b) the form and contents of application for registration of any Shop Card;
- (c) the form and contents of certificates of registration;
- (d) the fees prescribed in respect of applications to register Shop Cards and in respect of all other services performed by the Registrar under the Act."

NOW, THEREFORE, His Excellency the Administrator in Council, on the recommendation of the Secretary of State, is pleased to make, as Regulations under The Shop Cards Registration Act, 1938, the draft Regulations attached hereto, and they are hereby made and established, effective on the 1st day of September, 1938.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS UNDER THE SHOP CARDS REGISTRATION ACT, 1938

INTERPRETATION

I. In the construction of these Rules and Regulations any words used therein, the meaning of which is defined by the said Act or The Interpretation Act, R.S.C. 1927, c.1, shall have the meanings thereby assigned to them respectively.

Act

"Act" means The Shop Cards Registration Act, 1938.

Office

"Office" means Office of the Registrar of Shop Cards, Department of Secretary of State, Ottawa, Canada.

Shop Cards Registration Act—continued*Office Address*

All communications shall be addressed to the Office as follows: "The Registrar of Shop Cards, Department of Secretary of State, Ottawa, Canada."

Correspondence

All business before the Office administering this Act shall be in writing and in considering any pending application the Registrar shall refer only to the Act and to the file of the application in question. The Registrar may, if he so desires, seek information concerning any pending application, or any other matter before the Office, from such other source as he may deem advisable.

Correspondence addressed to the Office shall deal with only one subject in each letter.

Whenever any person is, by the Act or these Rules, requested to furnish the Registrar with an address, the address given shall, in all cases, be as complete as possible for the purpose of enabling any person to find the place of business of the person whose address is desired. When it is possible to give a street and number, the address shall include such street and number.

Correspondence addressed to the Office relating to a pending application for the registration of a shop card must include the name of the applicant, the serial number of the application as given by the Office, and a description of the shop for which registration is being sought.

The Office is precluded from expressing an opinion regarding the provisions of the Act except when dealing with an application for registration of a shop card.

FORMS

II. Forms appearing in the annexed Schedule, marked "A", shall be the forms acceptable to the Office. Applicants may, however, with the consent of the Registrar, vary a form to suit a particular case.

Subject to any other direction that may be given by the Registrar, all applications and other documents required by the Act, or by these Rules shall be upon legal cap paper of a size approximately 13" x 8" and have a margin, on the left-hand side, of not less than 1½".

APPLICATIONS FOR REGISTRATION

III. An application for registration of a shop card must be made in duplicate on the appropriate form set out in Schedule "A", and must be signed by the applicant.

An application for the registration of a shop card, unaccompanied by the statutory fee, shall not be considered, but shall be returned immediately to the applicant.

An application for the registration of a shop card shall not be considered, unless it be filed within four months from the date of its execution.

An application should be signed by the Officials authorized so to do, and the corporate seal should be affixed thereto whenever possible.

On and after the receipt of an application the Registrar shall furnish the applicant with an acknowledgement thereof.

Shop Cards Registration Act—continued

Representations of Shop Cards

An application shall be accompanied by five representations of the shop card of a size not larger than three inches square. These representations shall be on paper of a durable quality and suitable for pasting on cards. The Registrar, if dissatisfied with any copies submitted, may require other representations to be furnished before proceeding with the application.

Translation of foreign words

Where a shop card contains a word or words in a language other than English or French, there shall be submitted an exact translation thereof. If the Registrar so requires, such translation shall be endorsed and signed by the applicant.

When an application for registration of a shop card requires amendment, and a duplicate has been returned by the Office, the applicant, if he desires to prosecute the matter further, must submit, in duplicate originals, a revised application bearing the same date as the original application, containing the amendment or amendments suggested, together with the copy returned to him by the Office. Such amended application shall bear the same filing date and serial number as the original application. The employees of the Office will not make, at the request of an applicant, a correction in any document which has been filed.

When application held to be abandoned

When no reply has been received to an action taken by the Office within six months from the date of such action, by reason of default on the part of the applicant, the application shall, after notice duly given by registered mail, be treated as abandoned unless it be completed within the time specified in such registered notice.

IV. The form of the certificate, register sheet and index card, shall be the form appearing in the annexed Schedule, marked "B", "C" and "D" respectively.

V. Certificates of registration and other documents issuing from the Office of the Registrar shall be under seal.

CLERICAL ERRORS

VI. A clerical error or errors in any instrument of record in the Office shall not be construed as invalidating the same, but when discovered, it or they may be corrected by certificate under the authority of the Registrar.

FEEs

VII. The following fees shall be payable on applications to the Registrar under this Act,—

On every application to register a shop card;	\$25.00
On every application for the renewal of an expiring registration	15.00
On every application to amend the record of the registration of a shop card, otherwise than in respect of the address of the applicant	5.00
On every application to amend the record of a registration in respect of such address	1.00
On every application for a copy of a document on file in the office of the Registrar, 25c. for each one hundred words or fraction thereof, with a minimum of	1.00

Shop Cards Registration Act—continued

On every application for a certified copy of a registration ..	2.00
On any application to the Registrar to transmit to the Exchequer Court of Canada, the papers on file in his office relating to any entry in the registrar	5.00

SCHEDULE "A"

....., a
 (Name of Labour Union)
 Labour Union organized for the purpose of regulating the relations between employers and employees, and having its head office situated at.....
 in the City of.....
 Province
 State of..... hereby requests you

to register, pursuant to the provisions of The Shop Cards Registration Act, 1938, in the name of the applicant herein, a shop card described as follows

.....
 (Description of shop card)

.....
 (Name of Labour Union)

is entitled to adopt the said shop card in accordance with the provisions of the said Act, on account of having been the first to make use and/or to make known the same and that the said shop card was not in use by any other person or Labour Union, at the time of its adoption by the applicant herein.

Five specimens of the shop card are attached hereto.

Signed at this
 day of A.D. 19....
 (SEAL)

I, of the city of.....
 Province
 State of

hereby declare:

1. That I am the
 (President, Secretary or other
 Executive Officer) of
 (Name of Labour Union)

2. The said shop card is described as follows,—

 (Description of shop card)

3. The purpose for which the said card is used is,—

 (i.e. to be displayed in shops or factories employing members of the Union)

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

Declared before me
 at this day of A.D. 19....

Shop Cards Registration Act—concluded

SCHEDULE "B"

CANADA

I HEREBY CERTIFY that the Shop Card identified on the annexed documents, which form part of this Certificate, has been registered in the Register of Shop Cards maintained pursuant to The Shop Cards Registration Act 1938, under the number and date, in the name of the person, and for the use therein specified.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Seal of the Registrar of Shop Cards to be affixed at the City of Ottawa, Canada, this day of in the year of Our Lord one thousand nine hundred and .

(L.S.)

Registrar.

SCHEDULE "C"

SHOP CARD No.
REGISTER

Registrant:
Address:
Date of Registration:
Application Serial No.:
Description of Shop Card:
Use:

SCHEDULE "D"

Applicant:
Application Serial No.:
Registered: No.: Register:
Rejected or Abandoned:
Shop Card:
Use:

SMALL LOANS ACT, 1939. (1939, c. 23)

Regulation respecting the Computation of Cost or Interest

P.C. 15

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 4th day of January, 1940.

PRESENT:

THE DEPUTY OF HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS The Small Loans Act, 1939, is declared by section 22 thereof to come into force on the 1st day of January, 1940;

AND WHEREAS section 21 of the said Act authorized the Governor in Council to make regulations deemed necessary for the efficient enforcement and operation of the Act and for carrying out its provisions according to their true intent and meaning and for the better attainment of its objects;

Small Loans Act—concluded

AND WHEREAS it is deemed desirable to enact as a regulation under the said section the following for the purposes above set forth;

NOW, THEREFORE the Deputy of His Excellency the Governor General in Council, on the recommendation of the Minister of Finance, is pleased to make the following Regulation, as a regulation under the said section, to have force and effect on and from the First day of January, 1940, and it is hereby made and established accordingly:—

REGULATION

For the purpose of computing the amount of cost or interest for a portion of a month the number of days in such portion shall be multiplied by one-thirtieth of the amount of the cost or interest for a full month.

N. A. ROBERTSON,
Clerk of the Privy Council.

SOLDIER SETTLEMENT ACT. (R.S.C., 1927, c. 188)**The Soldier Settlement Loan Regulations**

P.C. 217

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 30th day of January, 1948

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Veterans Affairs and pursuant to the provisions of The Soldier Settlement Act, is pleased to order as follows:

1. The Orders in Council listed hereunder which were made under The Soldier Settlement Act, are hereby revoked:

P.C. 2587 dated 30 December, 1919, as amended;

P.C. 468 dated 1 March, 1920;

P.C. 845 dated 15 March, 1921, as amended;

P.C. 325 dated 13 February, 1922;

P.C. 69 dated 23 January, 1925, as amended;

P.C. 2433 dated 4 January, 1928;

P.C. 820 dated 16 May, 1928;

P.C. 847 dated 23 May, 1928;

P.C. 1283 dated 19 July, 1929;

P.C. 1776 dated 28 July, 1937;

P.C. 2173 dated 8 September, 1938.

2. The following regulations, to be known as The Soldier Settlement Loan Regulations, are hereby made and established in substitution for the Orders in Council hereby revoked:

THE SOLDIER SETTLEMENT LOAN REGULATIONS

1. These regulations may be cited as The Soldier Settlement Loan Regulations.

Soldier Settlement Act—continued

INTERPRETATION

2. In these regulations, unless the context otherwise requires, the expression

- (a) "Act" means the Soldier Settlement Act and amendments thereto;
- (b) "Minister" means the Minister of Veterans Affairs;
- (c) "Director" means the Director of Soldier Settlement;
- (d) "migrant" means a settler contemplated by the British agreement dated the twentieth day of August, one thousand, nine hundred and twenty-four, between His Majesty's Secretary of State for the Colonies, of the one Part, and the Government of the Dominion of Canada, of the other Part.

PROCEDURE UPON DEFAULT OF SETTLER

3. Where a sale of any property has been made to a settler whereon any balance of the sale price remains payable by instalments or otherwise, or where any advances made or granted to or on behalf of a settler are repayable on the instalment plan or otherwise, and

- (a) any instalment or payment is not punctually made by the settler when the same is due; or
- (b) the settler makes any other default in performance of the terms and conditions subject to which such sale is made or advances granted as the case may be, whether such terms and conditions are expressly stated or otherwise implied in any agreement of sale, mortgage, charge or other document executed by the settler in connection with such sale or advance, or whether provided by the Act and regulations thereunder,

the Director may rescind the agreement of sale or take all the steps necessary to sell or foreclose under such mortgage, charge or other document, as the case may be, in order to recoup himself for his expenditures in connection with the acquirement of the property and advances, if any, made to or on behalf of the settler.

4. Before exercising as respecting the land purchase agreement the right of rescission by the Act given, the Director shall give to the settler notice of his intention to do so, which notice shall be in writing over the signature of the Director or an officer acting for him, and such notice shall be deemed duly given if mailed in any Post Office by registered letter addressed to the settler at his last address known to the Director, thirty clear days before the Director acts thereunder;

Provided that in case the settler is deceased such notice shall be deemed duly given if mailed in any Post Office by registered letter addressed to any person or persons upon whom in the event of the death of the settler the rights acquired by him under the Act devolve, pursuant to the provision of subsection two of section fifty-nine of the Act, at his or their last address known to the Director, or in case of such person or persons or his or their address being unknown to the Director, then generally to the heirs, devisees or personal representatives of the deceased without describing them by name, at the last address of the deceased known to the Director or, in the discretion of the Director, by publishing such notice thirty clear days before acting thereunder by a single insertion in one of the newspapers circulating in the district in which the land affected is situate;

Provided that no notice whatsoever shall be deemed necessary to the Director fully exercising his rights under section twenty-two or subsection

Soldier Settlement Act—continued

two of section fifty-nine of the Act where any instrument purporting to be a quit claim deed or assignment to the Director is executed by the settler or by a duly appointed legal representative or committee of a deceased or insane settler.

Settlers on unpatented Dominion Lands

5. In the event of a settler on unpatented Dominion Lands on which a charge has been created as provided by the Act being in default with respect to the terms of any agreement or document executed to or with the Director, the District Superintendent may give such settler thirty days' notice in writing before an application is made to the Minister pursuant to the provisions of section twenty-seven of the Act for the transfer of such land to the Director, of the Director's intention to so apply.

Notice may be mailed to settler upon rescission of agreement

6. Where an agreement of sale is rescinded as aforesaid, the District Superintendent may apprise the settler by notice in writing, either served on the settler in person or mailed to his last address known to the Director.

7. The effect of subsection five of section four of the Soldier Settlement Act is to make lands held by the Director as a corporation sole and lands sold under agreement for sale subject to taxation by the local taxing authorities. There are however other lands which have reverted to the Director not held by any person under agreement for sale, which were acquired or are held for settlement purposes and as settlement thereof is facilitated by the public services provided by local taxing authorities, the Minister in charge of Soldier Settlement is authorized when he deems it to be in the public interest to make grants to taxing authorities in an amount not exceeding the tax assessment which might be imposed where the occupants serviced the lands such as would bring them within the category defined by subsection five of section four of the Soldier Settlement Act.

DISPOSAL OF LANDS*Sales of land to be evidenced by agreement*

8. All sales of land made by the Director as herein provided whereon any balance of the sale price shall remain payable by instalments or otherwise, shall be evidenced by agreement of sale in the form prescribed by the Director, which shall set forth the terms of sale and shall contain such other provisions as the Director may deem desirable for the protection of his security.

Inspection of land acquired by retaking

9. It shall be the duty of the District Superintendent to cause inspection and reappraisal to be made of lands under his jurisdiction acquired or reacquired by the Director by retaking as provided by the Act, because of default or otherwise, as well as of other lands acquired by the Director which, after a period satisfactory to the Director, have not been disposed of to soldier settlers in a manner provided by the Act and regulations thereunder in order that such further action may be taken with respect to disposal of such lands as is hereinafter provided or as may be otherwise determined by the Director.

Sale of lands to general public by tender

10. Any land reacquired by the Director by retaking because of default or otherwise, or any land, the manner of disposal of which is not otherwise

Soldier Settlement Act—continued

prescribed and which, having been acquired by the Director by purchase or otherwise as portion of one or more other parcels, or otherwise, is not deemed suitable for Soldier Settlement, or which, although being considered suitable, has not been disposed of to settlers within a period satisfactory to the Director, may, unless the Director shall otherwise determine, be posted by the District Superintendent for sale by public tender or auction, in the discretion of the Director, to be disposed of subject to the terms and conditions hereinafter mentioned.

Public notice of proposed sale

11. No land offered for sale by public tender or auction by the Director shall be sold until notice that it is to be offered for sale upon a date to be set forth in the notice has been posted for at least fifteen days in the office of the District Superintendent for the District within which the land is situated and has been given such other publicity as the Director may deem necessary.

Tender to be accompanied by deposit

12. The Director may require that each tender submitted in response to notice as aforesaid shall be accompanied by an accepted cheque or postal or express money order or cash, for one-tenth of the amount tendered or for such other sum as may be satisfactory to the Director. Such sum, or any portion thereof, may be declared forfeited, in the discretion of the Director, where the tender is accepted but the tenderer refuses to proceed with his application to purchase.

Sale to highest tenderer

13. Except as herein otherwise provided or as may be otherwise determined by the Director, the land offered for sale by public tender or auction shall be sold to the highest tenderer or bidder, if the amount of such tender or bid is acceptable to the Director, provided that in the case of land retaken pursuant to default or otherwise, which is deemed suitable for Soldier Settlement, and on which no improvements have been effected or residence performed by the settler from whom it was retaken, or where the residence performed or improvements effected by the settler are of such character that in the opinion of the Director they do not entitle him to any special consideration, the land may be disposed of under the terms of the Act to a qualified settler applying for the same at the cost of the land to the Director, as determined by the Director, any higher tender received notwithstanding.

Terms of payment in case of sale to other than settlers

14. The terms of payment for any land sold to other than settlers under the Act shall unless otherwise determined by the Director, be all cash down or, at the option of the Director such per centum of the purchase price payable in cash at the time of sale as the Director may prescribe, and the balance in twenty-five or less equal, consecutive, annual instalments with interest at five per centum per annum on the amortization plan. Effective the standard date 1937 the interest rate on all sales of land made prior to December 29, 1936, to other than settlers under the Act shall be reduced to five per centum provided such reduction does not involve a refund in repaid loans.

Soldier Settlement Act—continued*Private sale of certain lands*

15. Any land coming within the scope of regulation ten of these regulations

(a) which remains undisposed of after having been offered for sale as provided by the said section; or

(b) with respect to which the Director may so direct; may be listed for sale at the office of the local District Superintendent to be available for sale to the first person applying for the same who is prepared to buy such land at the price satisfactory to the Director and subject to the terms and conditions prescribed by these regulations, provided that no such land may be sold at less than cost of same to the Director unless the sale price is approved by the Governor in Council.

DECEASED AND INSANE SETTLERS

Heirs, etc., must furnish assurance of willingness to carry out obligations

16. When a settler dies indebted to the Director, under an agreement of sale or otherwise, with respect to any property or to any advance charged upon any property, his heirs, devisees or personal representatives, upon whom pursuant to the provisions of the Act the rights acquired by the deceased under the Act or the former Act devolve, shall furnish the Director with Letters Probate of the Will or Letters of Administration of the estate of the deceased, as the case may be, or a duly certified copy thereof, and shall furnish any assurance or undertaking the Director may deem necessary, by way of execution of any document required in that connection or otherwise, that they are prepared to perform all the obligations of the deceased to the Director with respect to such property or such advance.

Transfer of right by heirs, etc.

17. In the event of the death of a settler, as aforesaid, and upon his heirs, devisees or personal representatives, as the case may be, furnishing evidence satisfactory to the Director as to their rights under the Act so provided, the Director may grant authority in writing to such heirs, devisees or personal representatives, as the case may be, to assign or transfer the right of the deceased devolving upon them to any person satisfactory to the Director subject to the approval of the Director, and upon the assignment or transfer being approved by the Director, such rights shall devolve upon such assignee, but subject to all rights, claims and charges of the Director respecting or affecting the property involved, and subject to performance by the assignee of all the obligations of the deceased with respect to such property or advance, and default on the part of the assignee with respect to any right, claim or charge of the Director shall have the same effect as would default on the part of the settler but for his death.

Insane settlers

18. In the event of any person who is indebted to the Director, under an agreement of sale or otherwise, with respect to any property or to any advance charged upon any property becoming insane or mentally incapable and, by reason of such insanity or mental incapacity, unable to carry on his obligations to the Director, the guardian or committee of the said person or any person who, in the event of his death, would be entitled as his legal representative to do so, shall be required to perform all the

Soldier Settlement Act—continued

obligations of the settler with respect to such property or advance; but the Director may, in his discretion, dispense with the residence requirements if, in his opinion, the circumstances so justify and the Director's security is not impaired thereby; and upon the fulfilment of the requirement and the repayment of the indebtedness of the settler to the Director the title to the property the settler is purchasing may be conveyed by the Director to such settler.

MIGRANTS

Lands to be set aside

19. The Director may, for the purpose of settling migrants, set aside any surplus farm or farms owned by him not affected by a prior claim of a soldier settler who applied for the same.

Advances for stock and equipment and other purposes

20. The Director may sell to the migrants locating on lands owned by the Director any surplus stock and equipment on his hands. Advances for stock and equipment, seed and feed and other purchases under agreement for migrants may be made only in the case of such migrants as are approved by the Imperial Government and with respect to whom the Imperial Government has agreed to reimburse the Dominion Government under the terms of the agreement, all such advances being made out of the appropriation for Soldier Land Settlement, or General Land Settlement. Report shall be made to the Imperial Government with respect to the sums so disbursed and refund requested of the sums so paid. Upon the receipt of the amounts payable by the Imperial Government, the sums so received shall be deposited by the Director with the Receiver General to the credit of the fund from which the advances have been made and shall be available for redissemination. Any administrative expenditures in connection with the agreement undertaken by the Dominion Government shall be chargeable to the appropriation for Soldier Land Settlement, or for General Land Settlement.

Maximum Advances

21. The total advances of all descriptions to any migrant, including the value of the land and British advances, shall not exceed seven thousand five hundred dollars in the case of any one settler.

Terms of repayment of advances

22. All advances to migrants shall be payable by migrants with interest amortized at a rate not exceeding five per cent per annum in twenty-five equal, annual payments, and the first instalment of repayment by a migrant in respect to any advances made to him shall be due twelve months after the October following the date of his taking up his farm, provided, however, where necessary the repayment date or dates may be modified.

Advances to form charge on land

23. All advances made to each migrant under the agreement shall be secured by a lien against the land, improvements, and all chattel property supplied.

24. The Director shall keep a separate account of the sums received on account of repayments of all advances whether in kind or in cash, and

Soldier Settlement Act—concluded

shall render to the Secretary of State for the Colonies at the end of each quarter or at such other intervals as may be jointly arranged, an officially certified account of the sums for the last quarter period, and shall pay to or to the account of the Secretary of State for the Colonies with respect to each migrant the proportionate amount as due to the Secretary of State.

25. The Director shall in all matters relating to advances and repayment and otherwise be governed by the terms of the agreement.

26. No title to land or title to other property purchased with the advances under the agreement shall be given to a settler until he has completely repaid his debt, with interest, with respect to land, stock and equipment, and has also repaid any debt in respect to the cost of his transportation; provided that where the Director considers it desirable, he may grant the settler title to any part of the property covered by the advances made under the agreement on taking full security from the migrant on the remaining property for the full amount of any existing indebtedness (with interest, if any) or the Director may otherwise dispose of any portion of the property in order to protect the interests of both parties to the agreement. In the event of such disposal of any property purchased with advances made by the Secretary of State, the Director undertakes to render to the Secretary of State an officially certified account of the said disposal of the property and shall, if required, pay to or to the account of the Secretary of State the whole of the amount realized from time to time by the said disposal.

27. Adjustments shall be made in sterling and, for the purposes of the agreement, current rates of exchange shall be adopted.

28. The Director shall cause the accounts referred to in the agreement to be audited once in each year by the Auditor General, and shall furnish the Secretary of State with a copy of his certificate and report.

N. A. ROBERTSON,
Clerk of the Privy Council.

SPECIAL OPERATORS WAR SERVICE BENEFITS ACT.

(1946, c. 64)

No statutory orders or regulations have been made under this statute.

SPECIAL WAR REVENUE ACT

See EXCISE TAX ACT.

STATISTICS ACT. (R.S.C., 1927, c. 190)

1. *Transmission of statistics free of Canadian Postage*
2. *Statistics respecting transportation of persons*

1. Regulations respecting the transmission of Statistics free of Canadian Postage

P.C. 6376

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 21st day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Postmaster General and pursuant to the provisions of subsection three of section nine of The Statistics Act, chapter 45 of the Statutes of Canada, 1948, is pleased to order as follows:

1. The regulations governing the free transmission of statistics collected by provincial government departments and intended also for the use of the Dominion Bureau of Statistics, established by Order in Council P.C. 2624 of 23rd July, 1921, as amended, are hereby revoked; and

2. The following regulations are hereby made and established in substitution for the regulations hereby revoked:

REGULATIONS GOVERNING THE FREE TRANSMISSION OF STATISTICS COLLECTED BY PROVINCIAL GOVERNMENT DEPARTMENTS AND INTENDED ALSO, BY AGREEMENT UNDER SECTION NINE OF THE STATISTICS ACT, FOR THE USE OF THE DOMINION BUREAU OF STATISTICS.

1. All forms, schedules and returns sent to a provincial department, and forms used by clergymen, medical doctors and others in making returns of births, marriages, deaths, and communicable diseases, when approved by the Dominion Bureau of Statistics and when available by arrangement under The Statistics Act for the use also of the Bureau, shall be free of Canadian postage.

2. To be admitted to the privilege of free transmission, all such returns shall bear on the form or on the envelope, as the case may be, the words

Dominion Statistics—Free

Penalty for improper use—\$50

which shall be printed clearly and legibly on every such form or envelope.

3. If registration is required on any such return the usual fee of ten cents shall be prepaid by stamps in every case.

N. A. ROBERTSON,
Clerk of the Privy Council.

Statistics Act—concluded**2. Statistics respecting transportation of persons**

DEPARTMENT OF TRADE AND COMMERCE

Pursuant to powers conferred by sections 7 and 32 of the Statistics Act, I hereby make the following regulations:

Statistics respecting Transportation of Persons

1. The Dominion Bureau of Statistics shall collect, compile, analyse, abstract and publish statistics in relation to the supplying of the service of transportation of persons.

2. All persons employed in the business of transporting persons shall
- (a) make a monthly report on a form provided by the Dominion Bureau of Statistics,
 - (b) furnish therein all information required by such form, and
 - (c) forward such report, completed in all respects, to the Dominion Bureau of Statistics, Transportation Division, Ottawa, within the time specified in such form.

Ottawa, December 24, 1948.

C. D. HOWE,
Minister of Trade and Commerce.

STATUTE LAW AMENDMENT (NEWFOUNDLAND) ACT (1949, c. 6)

See EMERGENCY EXCHANGE CONSERVATION ACT; FAMILY ALLOWANCES ACT, 1944.

STOCKYARDS, REGULATIONS RESPECTING

See LIVE STOCK AND LIVE STOCK PRODUCTS ACT.

SUCCESSION DUTY

See DOMINION SUCCESSION DUTY ACT.

SUNFLOWER SEED, SUM PAYABLE FOR

See WHEAT AND GRAIN (Canadian Wheat Board Act).

SUPERANNUATION

See CIVIL SERVICE SUPERANNUATION ACT, DIPLOMATIC SERVICE (SPECIAL) SUPERANNUATION ACT.

SUPERVISORS WAR SERVICE BENEFITS ACT. (1946, c. 66)

No statutory orders or regulations have been made under this statute.

SUPREME COURT ACT. (R.S.C., 1927, c. 35)

Under section 104 of the *Supreme Court Act* general rules have been made by the Judges of the Court for regulating the procedure of and in the Court, etc. The *Rules of the Supreme Court of Canada, 1945* may be obtained from the King's Printer, Ottawa. Price 50 cents.

SURPLUS CROWN ASSETS ACT. (1944-45, c. 21)

No statutory orders or regulations have been made under this statute.

TARIFF BOARD ACT. (1931, c. 55)

No statutory orders or regulations have been made under this Act. The decisions of the Tariff Board, which by statute is a court of record, have been excluded from this Consolidation by section 9(b) of The Statutory Orders and Regulations Order, 1949. Under subsection (12) of section five of the Act the Board is empowered to make such rules and regulations as it may deem expedient for the conduct of its proceedings, but this power has not so far been exercised and no rules of procedure have been made. All decisions of the Tariff Board in respect of cases brought before it under the *Customs Act* or the *Excise Tax Act* are published in Part I of the *Canada Gazette*.

TAXATION

See DOMINION SUCCESSION DUTY ACT; EXCESS PROFITS TAX ACT; EXCISE ACT; EXCISE TAX ACT; INCOME TAX ACT; INCOME WAR TAX ACT.

TIMBER MARKING ACT. (R.S.C., 1927, c. 198)

The Timber Marking Rules

P.C. 5175

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 10th day of November, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Secretary of State and pursuant to the provisions of section 11 of the Timber Marking Act, Revised Statutes of Canada, 1927, Chapter 198, is pleased to order as follows:

1. The rules and form under the Timber Marking Act established by Order in Council P.C. 2729 of the 12th November, 1920, are hereby revoked; and

2. The rules and form hereto annexed entitled "The Timber Marking Rules" are hereby approved and established in substitution for the Rules and Form hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE TIMBER MARKING RULES

(Made under section 11 of the Timber Marking Act, R.S.C., 1927, c. 198.)

1. Applications shall be prosecuted by correspondence and shall be addressed "The Commissioner of Patents, Ottawa, Canada." Applications and correspondence on the subject of any application or mark when so addressed and posted in Canada will be carried free of Canadian postage.

Timber Marking Act—concluded

2. Correspondence on the subject of any application shall not relate to more than one application and will be conducted with only one person who shall be the applicant or his agent duly authorized in writing. This rule shall not apply to assignments or other documents of title.

3. Any document other than a drawing relating to a timber mark shall be clearly and legibly typewritten or printed on sheets of good quality pure white paper satisfactory to the Commissioner. The paper shall be 8 inches wide and 13 inches long with a clear margin of one inch on the left-hand side and one copy of any typewritten document shall be a ribbon copy.

4. (1) Drawings shall be on sheets of good quality white paper or tracing cloth, 8 inches wide and 13 inches long. Views shall be clearly drawn in black lines on a sufficiently large scale to be easily read.

(2) Neither the title of the mark nor any descriptive matter shall appear on any part of a sheet, but each sheet may bear in the lower right-hand corner the signature of the applicant or his agent.

5. (1) An assignment presented for registration against a registered timber mark shall be the original document or a typed or printed copy thereof certified to be a true copy before a notary public.

(2) If an assignment is accompanied by a duplicate or a notarially certified copy thereof the duplicate or copy shall be returned by the Office with a certificate of registration, but if not so accompanied the Office shall notify the person who presented the document for registration of the number and date under which and of the mark against which it has been registered.

THE TIMBER MARKING ACT
FORM FOR APPLICATION FOR REGISTRATION OF A TIMBER MARK
(To be made in duplicate)

I, (we)
whose full post office address(es) is (are)
hereby request you to register in the name of
a Timber Mark which I (we) hereby declare is not and was not in use
to my (our) knowledge by any person other than myself (ourselves) at
the time of my (our) adoption thereof. The said Timber Mark consists
of (description of the Timber Mark).

A drawing of the said Timber Mark is hereunto annexed.

Signed at this
day of 19..... in the presence of the two
undersigned witnesses:

.....
Signature.

Witnesses:

(1)

(2)

The Commissioner of Patents,
Ottawa,
Canada.

TRADE AND INDUSTRY COMMISSION

See DOMINION TRADE AND INDUSTRY COMMISSION ACT.

TRADE MARK AND DESIGN ACT. (R.S.C., 1927, c. 201)

See also UNFAIR COMPETITION ACT.

The Industrial Designs Rules

P.C. 5176

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 10th day of November, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Secretary of State and pursuant to the provisions of Section 42 of the Trade Mark and Design Act, Revised Statutes of Canada, 1927, Chapter 201, is pleased to order as follows:

1. The Rules and Forms under the Trade Mark and Design Act, established by Order in Council P.C. 2729 of 12th November, 1920, as amended, are hereby revoked; and

2. The rules and form hereto annexed entitled "The Industrial Designs Rules" are hereby approved and established in substitution for the Rules and Forms hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE INDUSTRIAL DESIGNS RULES

*(Made under section 42 of the Trade Marks and Design Act,
R.S.C., 1927, C. 201.)*

1. Unless required by the Commissioner of Patents the personal attendance of an applicant or his agent at the Patent and Copyright Office is not necessary.

2. Applications shall be prosecuted by correspondence. No regard shall be had to any oral representation or statement not confirmed by letter.

3. All correspondence shall be addressed "The Commissioner of Patents, Ottawa, Canada." When so addressed and posted in Canada such correspondence will be carried free of Canadian postage.

4. Correspondence on the subject of any application will be conducted with only one person who shall be the applicant or his agent.

5. Communications addressed to the office shall not relate to more than one application. This rule shall not apply to assignments and documents of title.

6. Every correspondent shall give his full post office address.

Trade Mark and Design Act—continued

7. An application for registration of an industrial design shall be signed by the applicant or by an agent duly authorized in writing.

8. (1) Any document other than a drawing relating to a design application shall be clearly and legibly typewritten or printed on sheets of pure white good quality paper satisfactory to the Commissioner.

(2) Paper shall be 8 inches wide and 13 inches long with a clear margin of one inch on the left-hand side of the sheet.

(3) One copy of any typewritten document shall be a ribbon copy.

9. (1) Drawings shall be on sheets of good quality, strong, pure white paper or tracing cloth, and every drawing shall be prepared with clear, permanent black lines on sheets 8 inches wide and 13 inches long.

(2) All views shall be on a sufficiently large scale to be easily read. Any letter or word in a view shall be in stippled or broken lines if such letter or word has not been disclaimed in the description.

(3) Neither the title of the design nor any descriptive matter or name shall appear on any part of a sheet but each sheet may bear in the lower right-hand corner the signature of the proprietor or his agent.

10. (1) An assignment presented for registration against an application for an industrial design or a registered industrial design shall be the original document or a typed or printed copy thereof certified to be a true copy before a notary public or by a public office in which the original document was recorded.

(2) If an assignment is accompanied by a duplicate or a notarially certified copy thereof the duplicate or copy shall be returned by the Office with a certificate of such registration.

(3) If an assignment is not accompanied by a duplicate or a notarially certified copy thereof the Office shall notify the person who presented the document for registration of the number and date under which and of the application or registered design against which it has been registered.

11. (1) An application shall not be treated as entitled to the right accorded by section 52 of the Act, unless the applicant while the application is pending requests that it be so treated and informs the Office of the filing date and number of the application in another country on which he bases such request.

(2) The Commissioner of Patents may require an applicant who has requested that his application be treated as entitled to the right accorded by section 52 of the Act, to file a duly certified copy of the application in another country on which the applicant bases such request together with a certificate from the Patent Office in which the application was filed showing the actual date of its filing therein; and the Commissioner may refuse to treat the application as entitled to such right until the copy and certificate has been filed.

12. The Office shall acknowledge any enquiry but shall not furnish information respecting subsisting registrations. The Register of Industrial Designs and the indexes thereto are open to inspection free of charge under section 44 of the Act.

13. (1) For the purposes of the Classification of Industrial Designs maintained by the Patent and Copyright Office the proprietor or agent applying for the registration of any design shall forward to the Commissioner of Patents a drawing of the same in addition to those required by section 27 of the Act.

Trade Mark and Design Act—concluded

(2) The drawing shall be prepared as required by rule 9 of these Rules.

14. A design shall be deemed to be used as a model or pattern to be multiplied by any industrial process within the meaning of section 46 of the Copyright Act—

(a) When the design is reproduced or is intended to be reproduced in more than 50 single articles, unless all the articles in which the design is reproduced or is intended to be reproduced together form only a single set as hereinafter defined;

“Set” means a number of articles of the same general character ordinarily on sale together, or intended to be used together, all bearing the same design with or without modifications not sufficient to alter the character or not substantially affecting the identity thereof. Where there is any doubt whether given articles do or do not constitute a set, the doubt shall be determined by the Commissioner of Patents.

(b) Where the design is to be applied to (1) printed paper hangings, (2) carpets, floor cloths, or oil cloths, manufactured or sold in lengths or pieces, (3) textile piece goods, or textile goods manufactured or sold in lengths or pieces, (4) lace, not made by hand.

THE TRADE MARK AND DESIGN ACT

FORM FOR APPLICATION FOR REGISTRATION OF AN INDUSTRIAL DESIGN

I (we)
 whose full post office address(es) is (are)
 hereby request you to register in the name(s) of
 whose full post office address(es) is (are)
 an Industrial Design of a of which
 I (we) am (are) the proprietor(s).

I (we) declare that the said Industrial Design was not in use to my (our) knowledge by any other person than myself (ourselves) at the time of my (our) adoption thereof. The said Industrial Design consists of (description of the Industrial Design).

A drawing of the said Industrial Design is hereunto annexed.

Signed at this
 day of 19..... in the presence of the two undersigned witnesses:

.....
 Signature.

Witnesses:

(1)
 (2)

To the Commissioner of Patents,
 Ottawa,
 Canada.

TRADE UNIONS ACT. (R.S.C., 1927, c. 202)

See also SHOP CARDS REGISTRATION ACT. 1938.

The Trade Unions Registry Regulations

P.C. 3175

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 16th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Secretary of State and pursuant to the provisions of section 9 of The Trade Unions Act, Revised Statutes of Canada, 1927, chapter 202, is pleased to order as follows:

1. The Regulations under The Trade Unions Act, established by Order in Council P.C. 1444 of 26th June, 1889, are hereby revoked; and

2. The annexed "The Trade Unions Registry Regulations" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE TRADE UNIONS REGISTRY REGULATIONS

1. The Registrar shall not register a trade union under a name identical with that of any other existing trade union known to him, whether registered or not registered, or so nearly resembling such name as to be likely to deceive the members or the public.

2. Upon an application for the registration of a trade union which is already in operation, the Registrar, if he has reason to believe that the applicants have not been duly authorized by such trade union to make the same, may for the purpose of ascertaining the fact, require from the applicants such evidence as may seem to him necessary.

3. Application for registry shall be made in the form of Form No. 1, annexed hereto.

4. All documents transmitted to the Registrar relating to any registered trade union shall be open to inspection of any person on payment of twenty-five cents.

5. The certificate of registry shall be delivered to the applicant on payment of four dollars.

REGULATIONS RELATIVE TO THE REGISTRY OF ALTERATION OF RULES

6. An application may be made at any time on behalf of a trade union to the Registrar for the registration of an alteration of rules.

7. The alteration to be registered may be either—

(a) A partial alteration, consisting of a new rule or rules to be added to the registered rules, or to be substituted for any of the registered rules; or

Trade Unions Act—continued

- (b) A complete alteration, consisting of an entire set of rules to be substituted for the set of registered rules.

8. An application for the registration of a partial alteration of rules must be in the form of Form No. 6, annexed hereto, and must be accompanied:—

- (a) By an affidavit or declaration as the case may be, in the form of Form No. 5, annexed hereto, of an officer of the trade union, to the effect that in making the alteration of rules submitted for registration, the rules of the trade union have been duly complied with; and
- (b) By two copies of the new rule or rules proposed to be added, or, as the case may be, by two copies of the new rule or rules proposed to be substituted, and one copy of the old rules, in the place of which such substitution is to be made. Each copy of the new rules must be marked O, and signed by the applicants. The Registrar, before registering the new rule or rules to be added or substituted, as the case may be, shall ascertain that the rules of the trade union, if altered in accordance with the proposed partial alteration, will provide for all the matters required by the Trade Unions Act to be provided for by the rules of a registered trade union.

9. The certificate of registry of a partial alteration of rules shall be in the form of Form No. 8, annexed hereto, and shall be delivered to the applicants, attached to one of the copies of the new rule or rules, on payment of two dollars.

10. An application for the registration of a complete alteration of rules must be in the form of Form No. 7, annexed hereto, and must be accompanied:—

- (a) By an affidavit or declaration in the form of Form No. 5, annexed hereto, of an officer of the trade union, to the effect that, in making the alteration of rules submitted for registration, the rules of the trade union have been duly complied with; and
- (b) By two copies of the new set of rules. Each copy of the rules must be marked P, and signed by the applicants.

11. The Registrar, before registering the new set of rules, shall ascertain that the new set of rules provides for all the matters which, by the Trade Unions Act, are to be provided for by the rules of a registered trade union.

12. The certificate of registry of a complete alteration of rules shall be in the form of Form No. 9, annexed hereto, and shall be delivered to the applicant, attached to one of the copies of the new set of rules, on payment of two dollars.

Form No. 1

FORM OF APPLICATION FOR REGISTRY

1. This application is made by the seven persons whose names are subscribed at the foot hereof.

2. The name under which it is proposed that the trade union on behalf of which this application is made shall be registered is as set forth in rule No.

Trade Unions Act—continued

To the best of our belief there is no other existing trade union, whether registered or not registered, the name of which is identical with the proposed name, or so nearly resembles the same as to cause confusion.

3. The place of meeting for the business of the (*name of the union*) and the office to which all communications and notices may be addressed is at _____ as set forth in rule No. _____

4. The (*name of union*) was established on the _____ day of _____

5. The whole of the objects for which the (*name of the union*) is established, and the purposes for which the funds thereof are applicable, are set forth in rule No. _____

6. The conditions under which members may become entitled to benefits assured are set forth in rule No. _____

7. The fines and forfeitures to be imposed on members are set forth in rule No. _____

8. The manner of making, altering, amending and rescinding rules is set forth in rule No. _____

9. The provision for the appointment and removal of a general committee of management, of trustee or trustees, treasurer and other officers, is set forth in rule No. _____

10. The provision for the investment of funds and for the periodical audit of accounts is set forth in rule No. _____

11. The provision for the inspection of the books and names of the members by every person having an interest in the funds is set forth in rule No. _____

12. Accompanying this application are sent,—

(1) Two copies, each marked A, of the rules.

(2) A list, marked B, of the titles and names of the officers.

(3) A general statement, marked C*, showing—

(a) The assets and liabilities of the† _____ at the date up to which the statement is made out.

(b) the receipts and expenditure of‡ _____ during the year preceding the date § up to which the statement is made out, such expenditure being set forth under separate heads corresponding to the several objects of the trade union.

13. We have been duly authorized by the trade union to make this application on its behalf, such authorization consisting of**

(Signed)

1.....
2.....
3.....
4.....
5.....
6.....
7.....

day of

19 .

* This will only be necessary in case the trade union has been in operation more than a year previous to the date of the application.

† Name of trade union.

‡ This date will be fixed by the registrar.

** This will only be necessary where the trade union has been in operation before the date of the application.

In paragraph 13 must be stated whether the authority to make this application was given by "a resolution of a general meeting of the trade union", or if not, in what other way was it given

The two copies of rules must be signed by seven members signing this application.

The application should be dated, and forwarded to "The Registrar-General of Canada, Ottawa."

Trade Unions Act—*continued*

Form No. 2

FORM OF ANNUAL RETURN OF ALTERATIONS OF RULES AND NEW RULES
REQUIRED BY SECTION 14 OF THE ACT

*Annual Return of Alterations of Rules and New Rules for the Year
ending 31st December, 19 .*

Date of Alteration or Making of Rule	Words of Rule previous to Alteration	Words of Rule as Altered or of New Rule

..... } Trustees.
..... }

Trade Unions Act—continued

Form No. 3

FORM OF ANNUAL RETURN OF RECEIPTS, ETC., REQUIRED BY SECTION 13 OF THE ACT

General Statement of the Receipts, Funds, Effects and Expenditure of the Trade Union, held at 19.....
 in the County of in the Province of from to Cr.
 Reg. No. Dr.

19	RECEIPTS	\$	c.	19	EXPENDITURE	\$	c.
to	To Balance in Treasurer's hands on— Fines..... Entrance fees..... Contributions paid by Members for (Here set forth each of the objects of the Trade Union generally.) Contributions paid by members for ex- penses of management..... Interest received during the year on the funds invested..... \$			to	By Stationery and printing..... Salaries of paid officers (specifying them)..... Other necessary expenses of management..... Allowances for—to—members..... (Here set forth under the several heads of benefit claimants for each, and the amount paid.) Investments made during the year..... Balance in Treasurer's hands on..... \$		

Statement of the Assets and Liabilities for the..... Trade Union

19	Dr.	\$	c.	19	Cr.	\$	c.
to	To Amount of money to pay members..... (Here set forth separately the amount of each of the funds for benefits.) Amount of the management fund..... \$			to	By Money in public funds..... Government securities..... Real securities..... Other investments (if any, specifying them)..... \$		

..... } Auditors.

..... } Trustees.

3. This application is accompanied by a statutory declaration of _____, an officer of this trade union, to the effect that in making the alteration of rules now submitted for registration the rules of the _____ trade union were duly complied with.

Trade Unions Act—continued

4. We have been duly authorized by the _____ trade union to make this application on its behalf, such authorization consisting of a resolution passed at a general meeting on the _____ day of _____ (here insert the date, or if there was no such resolution, state in what other way the authorization was given).

(Signed) 1.....
2.....
3.....
4.....
5.....
6.....
6.....
7.....

day of _____ 19 _____

Form No. 7

FORM OF APPLICATION FOR REGISTRY OF COMPLETE
ALTERATION OF RULES

.....Trade Union. Register No.

1. This is an application for the registration of a complete alteration of the registered rules of the _____ trade union and is made by the seven persons whose names are subscribed at the foot hereof.

2. The complete alteration submitted for registration is the substitution of the set of rules, two copies of which (each copy marked P, and signed by the applicants) accompany this application, for the set of rules already registered.

3. The name under which it is proposed that the trade union, on behalf of which this application is made, shall be registered, is _____ as set forth in rule No. _____

4. To the best of our belief, there is no other existing trade union, whether registered or not registered, the name of which is identical with the proposed name, or so nearly resembles the same as to cause confusion.

5. The place of meeting for the business of the _____ and the office to which all communications and notices may be addressed is at _____, as set forth in rule No. _____

6. The (here insert name of trade union) was established on the day of _____

7. The whole of the objects for which the (here insert name of trade union) is established, and the purposes for which the funds thereof are applicable, are set forth in rule No. _____

8. The conditions under which members may become entitled to benefits assured are set forth in rule No. _____

Trade Unions Act—continued

9. The fines and forfeitures to be imposed on members are set forth in rule No.

10. The manner of making, altering, amending and rescinding rules, is set forth in rule No.

11. The provision for the appointment and removal of a general committee of management, of trustee or trustees, treasurer and other officers, is set forth in rule No.

12. The provision for the investment of funds and for the periodical audit of accounts is set forth in rule No.

13. The provision for the inspection of books and names of the members, by every person having an interest in the funds, is set forth in rule No.

14. This application is accompanied by a statutory declaration of , an officer of the said trade union, to the effect that, in making the alteration of rules now submitted for registration, the rules of the trade union were duly complied with.

15. We have been duly authorized by the (*here insert name of trade union*) trade union to make this application on its behalf, such authorization consisting of a resolution passed at a general meeting held on the day of (*here insert the date, or if there was no such resolution, state in what other way the authorization was given*).

(Signed)	1.....
	2.....
	3.....
	4.....
	5.....
	6.....
	7.....
day of	19 .

Form No. 8

FORMS OF CERTIFICATES

.....Trade Union. Register No.....

Certificate of Registry of Partial Alteration of Rules

I hereby certify that the rules, copy whereof is appended hereto, have been registered under the above-mentioned Act, in addition to the rules already registered (*or in substitution for No. and No.* of the rules already registered), for the (*here insert name of trade union*).

(Signed),
Registrar General of Canada.

day of 19 .

Trade Unions Act—concluded**Form No. 9**

.....Trade Union No.....

Certificate of Registry of Complete Alteration of Rules

I hereby certify that the set of rules, copy whereof is appended hereto, has been registered under the above-mentioned Act in substitution for the set of rules already registered for the (*here insert name of trade union*).

(Signed),

Registrar General of Canada.

day of

19.

**TRADING WITH THE ENEMY (TRANSITIONAL POWERS) ACT.
(1947, c. 24)**

Section 2 of this Act provides that the *Revised Regulations Respecting Trading with the Enemy (1943)* set out in the Schedule to the Act, shall, while the Act is in force, continue and be in full force and effect. Section 4 provides that the Act shall continue in force until a day fixed by proclamation of the Governor in Council and from and after that day the *Revised Regulations Respecting Trading with the Enemy (1943)* shall be deemed to be revoked.

TRAFFIC ON DOMINION PROPERTY

See VEHICULAR TRAFFIC ON DOMINION PROPERTY ACT.

TRANSITIONAL MEASURES, CONTINUATION OF

Under *The Continuation of Transitional Measures Act, (1947)*, (1947, c. 16 as amended by 1948, c. 5 and 1949, c. 3), certain orders and regulations made under the *War Measures Act* and *The National Emergency Transitional Powers Act, 1945*, specified in the Schedule to the Act, are continued in force while the Act is in force unless revoked under section four. Many of the orders and regulations listed in the Schedule to the Act have now been revoked. Those orders and regulations that were still in force and effect by virtue of this Act on December 31, 1949, are published in Appendix I to this Consolidation.

TRANSITIONAL POWERS

See TRANSITIONAL MEASURES, CONTINUATION OF; TRADING WITH THE ENEMY (TRANSITIONAL POWERS) ACT.

TRANSPORT ACT, 1938: (1938, c. 53)

See TRANSPORT COMMISSIONERS, BOARD OF.

TRANSPORT COMMISSIONERS, BOARD OF

The orders and rulings of the Board of Transport Commissioners, which by statute is a court of record, have been excluded from this Consolidation by section 9(b) of The Statutory Orders and Regulations Order, 1949. Copies of orders and rulings of the Board may be obtained on application to the Secretary, Board of Transport Commissioners, Ottawa.

TREATIES OF PEACE (ITALY, ROUMANIA, HUNGARY AND FINLAND) ACT, 1948. (1948, c. 71)

Regulations under the Act

P.C. 2995

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 16th day of June, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS, section 3 of the Treaties of Peace (Italy, Roumania, Hungary and Finland) Act, 1948, authorizes the Governor in Council to make such orders or regulations as appear to him to be necessary for carrying out the treaties, and for giving effect to any of the provisions thereof.

NOW THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Secretary of State for External Affairs and by virtue of the authority conferred by The Treaties of Peace (Italy, Roumania, Hungary and Finland) Act, 1948, is pleased to make the following regulations and they are hereby made accordingly:—

REGULATIONS

- (i) These Regulations may be cited as the Treaties of Peace (Italy, Roumania, Hungary and Finland) Regulations.
- (ii) In these Regulations "treaty" means a treaty of peace signed at Paris on the tenth day of February, 1947.
- (iii) Insofar as they are by their nature capable of having effect as law in Canada,
 - (a) Articles 76, 80 and Parts A, C and D of Annex XVI of the treaty between Canada and Italy;
 - (b) Article 30 and Parts A, C and D of Annex V of the treaty between Canada and Roumania;
 - (c) Article 32 and Parts A, C and D of Annex V of the treaty between Canada and Hungary; and
 - (d) Article 29 and Parts A, C and D of Annex V of the treaty between Canada and Finland,have the force of law in Canada.

N. A. ROBERTSON,
Clerk of the Privy Council.

UNEMPLOYMENT INSURANCE ACT, 1940. (1940, c. 44)

1. *Unemployment Insurance Commission Regulations*
2. *Unemployment Insurance Commission Special Orders*

1. The Unemployment Insurance Commission Regulations

P.C. 6126

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of December, 1949

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Labour and pursuant to the provisions of The Unemployment Insurance Act, 1940, is pleased to approve and doth hereby approve the revocation by the Unemployment Insurance Commission of "The Unemployment Insurance Commission Regulations, 1948", approved by Order in Council P.C. 4060 of 15th September 1948, as amended.

His Excellency is pleased further to approve the annexed regulations entitled "The Unemployment Insurance Commission Regulations, 1949" made by the Unemployment Insurance Commission on November 14, 1949, and the said "The Unemployment Insurance Commission Regulations, 1949" are hereby approved accordingly, in substitution for the Regulations the revocation of which is hereinabove approved.

N. A. ROBERTSON,

Clerk of the Privy Council

THE UNEMPLOYMENT INSURANCE COMMISSION REGULATIONS, 1949

PART I

THE UNEMPLOYMENT INSURANCE COMMISSION GENERAL REGULATIONS, 1949

Short Title—General Regulations

1. (1) (a) Part I of the Unemployment Insurance Commission Regulations, 1949 may be cited as "The Unemployment Insurance Commission General Regulations, 1949";

Coverage

(b) Part II of The Unemployment Insurance Commission Regulations, 1949, may be cited as "The Unemployment Insurance Coverage Regulations, 1949";

Contribution

(c) Part III of The Unemployment Insurance Commission Regulations, 1949, may be cited as "The Unemployment Insurance Contribution Regulations, 1949";

Unemployment Insurance Act—continued

Benefit

- (d) Part IV of The Unemployment Insurance Commission Regulations, 1949, may be cited as "The Unemployment Insurance Benefit Regulations, 1949";

Employment Service Regulations

- (e) Part V of The Unemployment Insurance Commission Regulations, 1949, may be cited as "The National Employment Service Regulations, 1949";

Application of Part I

(2) The provisions of The Unemployment Insurance Commission General Regulations, 1949, shall apply to every part of The Unemployment Insurance Commission Regulations, 1949.

Act

(3) In these Regulations "Act" means The Unemployment Insurance Act, 1940, as amended.

Notices by Mail

2. The Commission or any officer thereof may send by mail any request for information, notice or demand mentioned in the Act or Regulations, and for the purposes of the Act and these Regulations, and of any proceedings taken thereunder, any notice or other communication, which has been sent by mail pursuant to these Regulations, shall be presumed, until the contrary is proven, to have been received by the addressee, if it was sent to the last address given by him or his last known address.

Posters

3. (1) Every employer who has one or more insured persons in his employ shall from time to time post notices, in such form and containing such information as the Commission may require.

(2) Each such notice shall be kept in such conspicuous positions and for such period as the Commission may specify.

Secrecy of Records

4. Information, written or verbal, obtained from any person pursuant to the provisions of the Act or these Regulations may be made available only to

- (a) an insured person claiming benefit or any person acting on his behalf where such information is necessary for the proper presentation of his case to the Commission, a court of referees or the Umpire; or
- (b) any Department of the Dominion Government or to any court in connection with any case involving the enforcement or interpretation of the Act or these Regulations insofar as such information may be relevant thereto or to any person or group of persons as the Commission may deem advisable.

Powers of the Commission

5. The Commission may, by special or general directions, authorize any of its officers to act on its behalf in the exercise of any power or discretion given to the Commission by the Act or these Regulations.

Unemployment Insurance Act—continued*Certificate of Appointment of Inspector*

6. (1) The certificate of appointment of any person authorized to act as inspector shall be in such form as the Commission may from time to time determine.

(2) Every officer of the Commission who is performing the duties of auditor in the audit staff of the Commission is authorized by the Commission to act as an inspector for the purposes of the Act.

PART II**THE UNEMPLOYMENT INSURANCE COVERAGE REGULATIONS, 1949***Definitions***1. In these Regulations**

- (a) "appellant" means any person who has filed a notice of appeal under section nineteen of these Regulations;
- (b) "applicant" means any person or association of employers or employees who has filed an application pursuant to Section eleven of these Regulations;
- (c) "local office" means an office established by the Commission in any locality and includes any office designated by the Commission as such.

Predetermination of Earnings (\$3,120 a year)

2. (1) The employer of any employed person whose rate of remuneration is other than an hourly rate, a daily rate, a piece rate including mileage or other rate being a sum of money per unit of physical measurement of work accomplished or service rendered, or any such rates in combination with other rates, shall predetermine whether the earnings that such person will receive from such employer for the period of the twelve months next ensuing will, by reason of the amount thereof, make his employment an excepted or insurable employment, as the case may be, according to whether or not, under the circumstances of his employment and at his rate of remuneration,

- (a) his actual earnings for such period may reasonably be expected to exceed \$3,120; or
- (b) his actual earnings for such period cannot be estimated with any reasonable degree of certainty, and
 - (i) having been employed in the same employment at the same rate of remuneration by such employer, his actual earnings in the immediately preceding twelve months exceeded \$3,120; or
 - (ii) If he was not so employed, the earnings in the immediately preceding twelve months of persons employed at the same rate of remuneration in the same employment by such employer or at the same rate of remuneration in similar employment by other employers ordinarily exceeded \$3,120, and for the purposes of such predetermination, where the rate of remuneration of such employed person is a weekly rate not in excess of \$60, his actual earnings for such period shall be deemed reasonably not to exceed \$3,120.

Unemployment Insurance Act—continued

(2) If the employed person is dissatisfied with such predetermination he may apply to the Commission for a decision as to whether the predetermination was reasonable.

(3) If the employed person does not apply to the Commission within six months such predetermination shall be deemed to have been reasonable but the Commission, on its own initiative, where it is of the opinion that such predetermination was not reasonable, may decide whether such predetermination was in fact reasonable.

Election to Remain an Insured Person

3. Any person who, pursuant to the second proviso to paragraph (n) of Part II of the First Schedule to the Act, is entitled to elect to remain an insured person, and who desires to so elect, shall make his election in writing on such form as the Commission may from time to time determine.

Mixed Employment

4. (1) Where any person is employed under the same employer partly in insurable employment and partly in some other employment and the employer consents thereto in writing, such person shall be treated as if he were wholly engaged in insurable employment from the date upon which such consent is registered at the local office servicing the area of the employer's establishment and during such period as the consent remains in force and the employment continues as aforesaid until the employer thereat registers notice of its withdrawal in writing.

(2) Where any such person is employed solely in non-insurable employment for fifteen consecutive weeks, subsection one shall cease to apply.

Insurance Agents Excepted

5. (1) Every person who is employed in insurable employment as an insurance agent shall be included among the classes of persons employed in excepted employment in respect of his employment as such agent, and for the purposes of this subsection "insurance agent" means and includes a person who, for compensation, solicits contracts of insurance on behalf of any insurer or transmits, for a person other than himself, an application for or a contract of insurance to or from such insurer or offers or acts or assumes to act in the negotiation of such contracts, but does not include any officers or salaried employees of an insurer, except in respect of commissions or salaries in lieu of commissions received by such officers or employees for acting as an insurance agent as herein defined.

Certain Truckers Excepted

(2) Every person who is employed in insurable employment as a trucker shall be included among the classes of persons employed in excepted employment in respect of his employment as a trucker, and, for the purposes of this subsection "trucker" shall mean a person who, for remuneration, contracts for the conveyance of things by means of a motor or horse-drawn vehicle and who is the owner of such vehicle either absolutely, partly or conditionally.

Certain Sawmill and Planing Mill Workers Excepted

(3) Every person who is employed in insurable employment in a sawmill or a planing mill which is not part of lumbering and logging nor directly connected with a manufacturing plant, and which it is known

Unemployment Insurance Act—continued

will not operate in excess of thirty weeks in a year, and who is employed in any area which the Commission has not prescribed as an area where contributions are payable in respect of employment in lumbering and logging under the provisions of subsection three of section eighty six of the Act, shall be included among the classes of persons employed in excepted employment in respect of such employment.

Certain Real Estate Agents Excepted

(4) Every person who is employed in insurable employment as a real estate agent shall be included among the classes of persons employed in excepted employment in respect of his employment as such agent and, for the purposes of this subsection, "real estate agent" means and includes a person who is engaged or employed in the sale or purchase of real estate solely and exclusively upon a commission basis, and does not include any officers or salaried employees of a real estate broker or agent.

Employment Outside of Canada Insurable

6. (1) The Commission hereby prescribes, for the purposes of Part I of the First Schedule to the Act, the following employments outside of Canada or partly outside of Canada (being employments which, if they were employments in Canada, would make the persons employed therein insured persons), to be employments specified in Part I of the said Schedule and therefore insurable employments, namely:

Canadian Ships

- (a) Employment in any ship or vessel of Canadian registry or licence, unless such ship or vessel is regularly employed in voyages between ports outside of Canada, and
 - (i) has been chartered by demise to a person resident outside of Canada; or
 - (ii) its crew is mainly or wholly domiciled outside Canada, to the satisfaction of the Commission;

Foreign Ships

- (b) employment in any ship or vessel other than a ship or vessel of Canadian registry or licence,
 - (i) which has been chartered by demise to a person resident in Canada and which is regularly employed in voyages from a port in Canada; or
 - (ii) in which employment is subject, in matters relating to unemployment insurance, to the provisions of the Act, by virtue of an agreement entered into between the Government of Canada and the Government of the jurisdiction in which such ship or vessel is registered; and

Temporary Employment

- (c) employment for the purposes of the execution of some particular work, by a person who was an insured person immediately before leaving Canada, for an employer resident or having a place of business in Canada.

Unemployment Insurance Act—continued

Certain Persons Exempted

- (2) (a) Notwithstanding the provisions of subsection one of this section, and of Section sixteen of the Act, the Commission shall exempt from liability to contribute under the Act, any person employed in any ship or vessel described in subsection one of this section, who is neither domiciled nor has a place of residence in Canada, unless such person is domiciled or has a place of residence in any state of the United States of America, the territories of Alaska and Hawaii or the District of Columbia, or in any jurisdiction whose Government has entered into an agreement with the Government of Canada to establish reciprocal arrangements on questions relating to unemployment insurance for persons employed in any ship or vessel;
- (b) Any person exempted under this subsection shall not be insured under the Act, and the employer of any such exempted person shall not be liable to pay an employer's contribution in respect of such person.

Skilled Tradesmen Employed on Farms Insurable

(3) Every skilled tradesman, who is employed as such by the operator of a farm in excess of six days in a period of thirty consecutive days and who is in excepted employment by reason only of such employment, shall in respect of such employment be included among the classes of persons employed in insurable employment.

Certain Temporary Employees of Hospitals or Charitable Institutions Insurable

(4) Every person who is employed on a temporary or casual basis in construction, renovation, or repair work by a hospital or a charitable institution not operated for the purpose of gain and who is in excepted employment by reason only of such employment shall be included among the classes of persons employed in insurable employment in respect of such employment.

Duplicate Insurance as between Two Countries

7. Every person employed in insurable employment shall be included among the classes of persons employed in excepted employment, if

- (a) his services are performed in Canada, outside of Canada, or partly in Canada and partly outside of Canada, and contributions are payable by him or on his behalf with respect to all his earnings under
 - (i) the Unemployment Insurance Law of any State of the United States of America, the territories of Alaska and Hawaii or the District of Columbia, by reason of the Agreement between Canada and the United States of America respecting Unemployment Insurance, being Schedule "A" annexed to these Regulations, or
 - (ii) the Railroad Unemployment Insurance Act of the United States of America, or

Unemployment Insurance Act—continued

- (b) he is described by subparagraph (c) of subsection one of Section six of these Regulations but paragraph (a) of this section is not applicable to him, and his services outside of Canada continue or are expected by his employer to continue for a period exceeding eight months unless the Commission in a special case or group or class of cases extends this period by resolution, or
- (c) his place of residence is in Canada and contributions are payable by him or on his behalf under the unemployment insurance law of a foreign country with respect to all his earnings received for services performed outside of Canada, but in such event contributions shall be payable in respect of earnings for services performed in Canada, or
- (d) his place of residence is outside of Canada and contributions are payable by him or on his behalf under the unemployment insurance law of a foreign country with respect to all his earnings received for services performed in Canada.

Inconsiderable Employment—Certain Radio Artists Excepted

8. Every person who is employed as a radio artist by an employer operating a radio broadcasting station shall be deemed to be in excepted employment in respect of such employment during any pay period in which the broadcasting time of such employment does not respectively exceed, in the aggregate, two hours where the pay period is weekly, five hours where it is semi-monthly, and ten hours where it is monthly, and where the pay period is other than the foregoing, a number of hours to be determined by the Commission.

More than One Employer each Day

9. (1) Where an employed person is ordinarily employed each day by more than one employer, the employers of that person may, subject to the approval of the Commission, make an agreement whereby one employer may pay contributions in respect of such person on the basis of the total remuneration payable by them to such person, and whereby the employer who pays the contributions shall be reimbursed on a *pro rata* basis by the other employer or employers.

(2) Where such employers do not enter into such an agreement, the Commission may

- (a) designate an employer other than the first employer of the day, or
- (b) where it cannot be ascertained which of the employers is the first employer of the day, designate the employer from whom the employed person receives the largest amount by way of remuneration,

as the employer for the purposes of the provisions of the Act relating to the payment of contributions and no further contribution shall be payable in respect of such employed person by any other employer of that day.

Stevedoring in designated ports

(3) Notwithstanding other provisions of this section or Section seven-teen of the Act, where an insured person is employed in stevedoring in any of the ports designated under subsection three of Section five of the Unemployment Insurance Contribution Regulations, 1949, each employer of such person shall pay the contributions payable in respect of such employment.

Unemployment Insurance Act—continued

Certificate of Exemption

10. (1) Application for a Certificate of Exemption under Section sixteen of the Act or for renewal of such certificate shall be made on a form to be approved by the Commission for such purpose and the applicant shall set out therein all particulars required thereby and any further facts on which he relies to show that he is entitled to exemption, and he shall submit such further evidence in support of his application as may be required by the Commission.

(2) Each Certificate of Exemption shall be valid for such period from the date it is issued or renewed as may be specified therein unless the circumstances of the holder's employment alter in such a way as to disentitle him to exemption in which event the certificate shall cease to be valid and the holder thereof shall return it to the local office servicing the area of the holder's residence.

DETERMINATION OF QUESTIONS BY THE COMMISSION UNDER
SECTION 45 OF THE ACT

Application to the Commission for a Decision

11. (1) Any person or association of employers or employees may apply to the Commission for a decision of a question under Section forty-five of the Act by filing with the Commission, at Ottawa, an application in such form and manner as the Commission may from time to time approve or in substantially like form, and shall state the nature of the question which has arisen.

(2) No such application need be accepted by the Commission unless it contains particulars satisfactory to the Commission.

(3) Any application to the Commission under paragraph (d) of Section forty-five of the Act shall be made by the claimant at any time within twenty-one days from the date on which the decision of the insurance officer is communicated to him, or within such further time as the Commission may in any particular case for special reasons allow.

Application sent by Commission to Interested Parties

12. (1) Upon acceptance of such an application the Commission shall send a copy thereof to every person having an immediate interest in the Commission's decision of the question contained therein except the applicant, and the Commission may send such copy to any other person who appears to the Commission to be interested.

Filing of Statement of Particulars and Representations

(2) The Commission shall in each case fix a date to be inserted on such copy and any such person to whom the Commission has sent a copy of the application under subsection one of this Section may, on or before such date, file with the Commission, at Ottawa, a statement of the particulars and representations which he desires the Commission to consider in making its decision.

(3) In any case relating to an application to the Commission under paragraph (d) of section forty-five of the Act, it shall not be necessary for the Commission to send a copy of such application to the person alleged to

Unemployment Insurance Act—continued

have been the employer of the claimant or the person with whom the claimant had business dealings, unless it is contended that the relationship of the claimant to such person constituted insurable employment.

Further Investigation if Necessary

13. After the date fixed pursuant to subsection two of section twelve of these Regulations, the Commission shall, if the material which has been filed is not adequate for the decision of the question contained in the application, conduct such further investigation into the matter as it deems necessary, in such manner as it deems expedient.

Application for a Hearing

14. (1) On or before the date fixed pursuant to Section twelve of these Regulations, the applicant or any person to whom the Commission has sent a copy of the application under Section twelve, may apply to the Commission, at Ottawa, in writing for a hearing and the Commission shall thereupon grant a hearing; if no such application for a hearing has been made the Commission may nevertheless direct that there shall be a hearing.

Notice of Hearing

(2) The Commission shall, at least seven days prior to the date fixed for such hearing, send notice in writing of the date and place fixed for the hearing to the applicant and to all persons to whom copies of the application have been sent and from whom replies thereto have been received.

Hearing of Commission or Designated Person

(3) Such hearing may be held by the Commission itself or by a person or persons designated by the Commission for the purpose.

Report of Hearing

(4) If the Commission designates a person or persons to hold such a hearing, such person or persons shall submit a detailed report of the hearing to the Commission for its consideration in deciding the question.

Procedure

(5) The procedure at any such hearing shall be determined by the Commission or, if the Commission has designated a person or persons to hold such hearing, by such person or persons.

Decision of Commission

15. The decision of the Commission shall be in writing and the Commission shall send a copy thereof to the applicant and to all persons to whom copies of the application have been sent and from whom replies thereto have been received. The Commission may publish the decision if and as it deems proper.

If No Application to the Commission

16. If a question arises for decision under Section forty-five of the Act and no person having an immediate interest in the Commission's decision has filed an application for such decision, any officer of the Commission may make such application under the provisions of Section eleven of these Regulations.

Unemployment Insurance Act—continued

If New Facts Discovered

17. If, in any case, new facts are brought to the notice of the Commission, and it appears to the Commission that a decision made under section forty-five of the Act should be reconsidered under section forty-seven of the Act, the provisions of these Regulations with such modifications as the circumstances may require shall apply as though a new application had been made.

APPEALS TO THE UMPIRE UNDER SECTION 46 OF THE ACT

Notice of Appeal

18. An appeal under section forty-six of the Act from a decision of the Commission shall be by notice in such form and manner as the Commission may from time to time approve or in substantially like form and shall state the grounds of appeal of the person aggrieved.

Delay to Appeal

19. The notice of appeal shall be filed with the Commission at Ottawa within six months from the date on which the decision of the Commission is communicated to such person or within such other time as the Umpire may in any particular case for special reasons allow.

Notice of Appeal Sent to Interested Parties

20. (1) On receipt of a notice of appeal, the Commission shall send to every person having an immediate interest in the disposition of the appeal, except the appellant, a copy of such notice of appeal and may send such a copy to any person who appears to the Commission to be interested.

Filing of Statement of Observations and Representations

(2) The Commission shall fix a date to be inserted on such copy and any person to whom the Commission has sent a copy of the notice of appeal under subsection one of this section may, on or before such date, file with the Commission at Ottawa for submission to the Umpire a statement of the observations and representations which he desires the Umpire to consider in deciding the appeal.

(3) In any case relating to a question under paragraph (d) of section forty-five of the Act, it shall not be necessary for the Commission to send a copy of such appeal to the person alleged to have been the employer of the claimant or the person with whom the claimant had business dealings, unless it is contended that the relationship of the claimant to such person constituted insurable employment.

Submission of Record to Umpire

21. After the date fixed pursuant to Section twenty of these Regulations the Commission shall submit to the Umpire all material in its possession relevant to the appeal, and if such material is not adequate for the determination of the question referred to him, the Umpire may conduct such further investigation into such matter as he deems necessary, in such manner as he deems expedient, and he may request the Commission to obtain further particulars in such manner as he may direct or as the Commission deems expedient.

Unemployment Insurance Act—continued*Application for a Hearing*

22. (1) On or before the date fixed pursuant to Section twenty of these Regulations, the appellant or any person to whom the Commission has sent a copy of the notice of appeal under Section twenty of these Regulations may apply to the Umpire at Ottawa in writing for a hearing and the Umpire shall thereupon grant a hearing; if no such application has been made the Umpire may nevertheless direct that there shall be a hearing.

Notice of Hearing

(2) In any case in which a hearing is to be held, the Umpire shall, at least seven days prior to the date fixed for such hearing, send a notice in writing of the date and place fixed for the hearing to the appellant and to every person to whom the Commission has sent a copy of the notice of appeal under Section twenty of these Regulations and who has filed a statement under that section for the Umpire's consideration.

Procedure on Hearing

(3) The procedure on the hearing of an appeal shall be determined by the Umpire.

Decision of Umpire

23. The decision of the Umpire shall be in writing and the Commission shall send a copy thereof to the appellant and to every person to whom the Commission has sent a copy of the notice of appeal under Section twenty of these Regulations and who has filed a statement under that section for the Umpire's consideration. The Commission may publish the decision if and as it deems proper.

REFERENCES TO THE UMPIRE BY THE COMMISSION

SECTION 48 OF THE ACT

Notice of Reference

24. (1) When the Commission decides to refer any question to the Umpire for a decision under section forty-eight of the Act, it shall send notice in writing, in such form and manner as the Commission may from time to time approve, of such reference to every person having an immediate interest therein and it may send such a notice in writing of such reference to any other person who appears to the Commission to be interested.

Filing Statement of Observations and Representations

(2) The Commission shall in each case fix a date to be inserted in such notice and any person to whom the Commission has sent such notice may, on or before such a date, file with the Commission at Ottawa, for submission to the Umpire, a statement of the observations and representations which he desires the Umpire to consider in deciding the question referred to him.

(3) In any case relating to a question under paragraph (d) of section forty-five of the Act, it shall not be necessary for the Commission to send a copy of such reference to the person alleged to have been the employer of the claimant or the person with whom the claimant had business dealings, unless it is contended that the relationship of the claimant to such person constituted insurable employment.

Unemployment Insurance Act—continued

Submission of Record to Umpire

25. After the date fixed pursuant to subsection two of Section twenty-four of these Regulations, the Commission shall submit to the Umpire all material in its possession relevant to the reference.

Further Investigation if Necessary

26. After the material relevant to the reference has been submitted to the Umpire under Section twenty-five of these Regulations, the Umpire may, if such material is not adequate for the decision of the question referred to him, conduct such further investigation into such matter as he deems necessary, in such manner as he deems expedient, and he may request the Commission to obtain further particulars in such manner as he may direct or as the Commission deems expedient.

Application for a Hearing

27. (1) On or before the date fixed pursuant to subsection two of Section twenty-four of these Regulations, any person to whom the Commission has sent a notice of the reference under the said section may apply to the Umpire at Ottawa in writing for a hearing and the Umpire shall thereupon grant a hearing; if no such application has been made the Umpire may nevertheless direct that there shall be a hearing.

Notice of Hearing

(2) In any case in which a hearing is to be held, the Umpire shall, at least seven days prior to the date fixed for such hearing, send a notice in writing of the date and place fixed for the hearing to every person to whom the Commission has sent a notice of the reference under Section twenty-four of these Regulations and by whom a statement was filed under that section.

Procedure on Hearing

(3) The procedure on any such hearing shall be determined by the Umpire.

Decision of Umpire

28. The decision of the Umpire shall be in writing and the Commission shall send a copy thereof to every person to whom notice of the reference was sent under Section twenty-four of these Regulations and by whom a statement was filed under that section. The Commission may publish the decision if and as it deems expedient.

SCHEDULE "A"

AGREEMENT BETWEEN CANADA AND THE UNITED STATES OF AMERICA
RESPECTING UNEMPLOYMENT INSURANCE

(Made under authority of P.C. 1081, of February 13, 1942)
(In force since April 12, 1942)

Article I

- (a) In this agreement, unless the context otherwise requires,
- (i) "agency" means any officer, board, commission or other authority designated by an Unemployment Insurance Law in force in any state or in Canada to administer the Unemployment Insurance Fund for which provision is made by such Unemployment Insurance Law;

Unemployment Insurance Act—continued

- (ii) "state" means any state of the United States of America, the territories of Alaska and Hawaii, and the District of Columbia;
- (iii) "Social Security Board" means the Board designated in the Social Security Act to administer those provisions of the laws of the United States of America which relate to the Federal-State unemployment insurance program;
- (iv) "jurisdiction" means any State or Canada.

(b) Services performed by an individual for an employer shall be deemed to be localized within a jurisdiction if—

- (i) such services are performed entirely within such jurisdiction, or
- (ii) such services are performed both within and without such jurisdiction, but the services performed without such jurisdiction are incidental to the individual's services performed within such jurisdiction, for example, are temporary or transitory in nature or consist of isolated transactions.

Article II

This agreement shall not be applicable to employment with respect to which contributions are payable under The Railroad Unemployment Insurance Act of the United States of America or to the periods of unemployment with respect to which benefits are payable under that Act.

Article III

The Government of the United States of America agrees that the Social Security Board will recommend to each of the states that it carry out the provisions herein contained, and Canada agrees to carry out such provisions: Provided that if any state does not substantially carry out such provisions, the Unemployment Insurance Commission of Canada may suspend the operation of such provision with reference to such state.

Article IV

(a) An individual's entire services for an employer in insurable employment as defined in the unemployment insurance law of a jurisdiction will be insured under the unemployment insurance law of such jurisdiction in respect of services performed by him within, or both within and without such jurisdiction if—

- (1) his services are localized in such jurisdiction, or
- (2) his services are not localized in any jurisdiction but some of his services are performed in such jurisdiction, and
- (i) his base of operations, or if he has no base of operations, the place from which his services are directed or controlled, is in such jurisdiction, or
- (ii) his base of operations or the place from which his services are directed or controlled is not in any jurisdiction in which some of his services are performed, but his residence is in such jurisdiction.

(b) If clauses one and two of paragraph (a) of this article do not apply with respect to an individual's services, the agency of any jurisdiction may approve, subject to such conditions as it may prescribe or as may

Unemployment Insurance Act—continued

be prescribed by its unemployment insurance law, an election by such individual's employer pursuant to which such individual's entire services for that employer shall be deemed to be insured employment under the unemployment insurance law of such jurisdiction.

Article V

The agency of any jurisdiction may perform services for the agency of any other jurisdiction in the taking and development of any claim for benefits by an individual absent from such latter jurisdiction and desirous of claiming benefits under the unemployment insurance law of such jurisdiction.

Article VI

(a) To avoid the duplication of unemployment insurance payments with respect to the same period of unemployment, no benefits shall be payable on the basis of a claim filed through an agency of another jurisdiction unless the claimant's benefit rights, if any, under the law of the jurisdiction in which he files his claim shall have been exhausted or otherwise terminated.

(b) If, after such rights have been exhausted or otherwise terminated, any such individual has rights under the unemployment insurance laws of two or more jurisdictions, such individual may be required to exhaust or otherwise terminate his rights to benefits under such other laws in such order as may be determined jointly by the Social Security Board of the United States of America and the Unemployment Insurance Commission of Canada to be reasonable and just as between all affected interests.

Article VII

This agreement may be amended by mutual arrangement evidenced by an exchange of notes between the two Governments, and may be terminated by either Government after sixty days' notice to the other Government.

PART III

THE UNEMPLOYMENT INSURANCE CONTRIBUTION REGULATIONS, 1949

Definitions

1. In these Regulations

- (a) "local office" means an office established by the Commission in any locality and includes any office designated by the Commission as such;
- (b) "calendar week" means any period of seven successive days;
- (c) "pay period" means the period in respect of which an employed person's wages are payable or the period between two dates on which earnings are payable to an employed person.

COMPUTATION OF CONTRIBUTIONS

Number of Contribution Days

2. (1) For the purposes of this section, a day for which remuneration is payable to an employed person shall be treated as if it were a day on which such person works;

Unemployment Insurance Act—continued

(2) Where the pay period is monthly or semi-monthly, and an employed person works on each working day in the pay period, contributions shall be paid for

- (a) twenty-six or thirteen days respectively in each pay period; or
- (b) the actual number of working days in a particular pay period and any day or days in that pay period, recognized as a holiday, for the employed person, by the employer or by statute or custom;

but, in respect of any particular employed person, the employer shall elect to pay contributions in one only of the methods provided in this subsection.

(3) Where the pay period is other than monthly or semi-monthly and an employed person works on each working day in the pay period, contributions shall be paid for each working day in the pay period and for each day or days in that period, recognized as a holiday, for the employed person by the employer or by statute or custom.

(4) Where an employed person does not work on each working day in the pay period, contributions shall be paid for each working day on which he works, subject to the provisions of sections three, four, and five of these Regulations.

(5) Where in any week, a person works on each of the working hours, days or shifts which constitute the full week's work for any grade or class or shift in an occupation, or at a factory, workshop or other premises of an employer, contributions shall be paid for six days, notwithstanding the provisions of subsections two, three and four of this section.

(6) In any case not coming within the provisions of subsections two, three, four, or five of this section, or where, in the opinion of the Commission, it is not feasible to apply the provisions of these subsections in any specific case or cases, the employer shall submit to the Commission for approval a proposal for a method of determining the number of daily contributions payable, and any method proposed by an employer and approved by the Commission shall have effect as if it were specifically provided for in these Regulations and the Commission may, from time to time, rescind such approval.

(7) Subject to the provisions of paragraph (a) of subsection two of this section, in no case shall contributions be payable in respect of any pay period for more than the number of days for which provision is made in an insurance book for such period.

(8) In computing the number of contributions payable in respect of an employed person, no account shall be taken of any day for which remuneration is payable to him after his separation from insurable employment, and for the purposes of this section, separation shall include a lay-off.

Overlapping Days

3. (1) For the purposes of this section, a day for which remuneration is payable to an employed person shall be treated as if it were a day on which such person works.

(2) For the purposes of these Regulations where the period for which an employed person works is of twelve hours or less, begins on one day and extends over midnight into the following day he shall, in respect of such period

- (a) be treated as having worked on the first day only if the period for which he worked before midnight is of longer duration than that after midnight; and

Unemployment Insurance Act—continued

- (b) be treated as having worked on the second day only if the period for which he worked after midnight is of longer duration than that before midnight, or if such period before and after midnight is of equal duration.

(3) Where the period for which an employed person works exceeds twelve hours, begins on one day and extends over midnight into the following day, he shall be treated as having worked on both days.

Recording of Contributions

- (4) (a) Where the provisions of the Act or these Regulations require in any case the payment of two contributions for one day, the second contribution shall be recorded for the nearest day from Monday to Saturday in that week for which a contribution has not already been made;
- (b) Where a contribution is payable for a Sunday, such contribution shall be recorded as for the nearest day from the following Monday to Saturday for which a contribution has not already been made; and contributions for days from Monday to Friday in that week shall be recorded as for the next ensuing days, but in no case shall contributions payable from Sunday to Saturday in any week exceed six daily contributions.

(5) For the purposes of this section, where a day for which a contribution is payable is a Sunday, a contribution shall be payable for that Sunday.

Sunday Employment

4. Where an employed person works or remuneration is payable to him on a Sunday and the period for which he works or for which remuneration is payable to him is not described by subsections two or three of section three of these Regulations, a contribution shall be payable for that Sunday in accordance with the provisions of subsection four of that section of these Regulations.

Abnormal Working Days

5. (1) Notwithstanding other provisions of these Regulations contributions in respect of an employed person who habitually works for less than a full working week under circumstances which may from time to time require that he work more than the normal number of working hours in a day, shall, for any pay period, be payable for a number of days to be ascertained by dividing the number of hours actually worked in the pay period by the number of hours normally worked in a day in his employment: provided that contributions shall not be payable for any pay period for more than the number of days for which provision is made in an insurance book for such pay period.

Mileage Basis

(2) Notwithstanding other provisions of these Regulations contributions in respect of any person employed in any industry as the Commission may from time to time determine, and who is paid on a mileage basis shall, for any pay period, be payable for a number of days to be ascertained by dividing the number of dollars he earned in the pay period by a divisor or divisors to be determined from time to time by special order of the

Unemployment Insurance Act—continued

Commission: provided that contributions for any pay period shall not be payable for more than the number of days for which provision is made in an insurance book for such pay period.

Stevedoring in Designated Ports

- (3) (a) Notwithstanding other provisions of these Regulations and subject to paragraph (b) of this subsection, contributions in respect of any person employed in stevedoring in any port which the Commission from time to time by special order may designate for the purpose, shall be payable for each pay-week for a number of days to be ascertained by dividing the wages earned in the pay-week by a divisor or divisors to be determined from time to time by special order of the Commission: provided that contributions in respect of such employed person shall not be payable by any one employer for more than twelve days in respect of his employment in any one pay-week; and provided further that, in computing the number of contributions payable, any fraction resulting from such division shall be disregarded, except where wages earned by the insured person in the pay-week are less than the amount of the divisor, in which latter case a contribution shall be payable for one day; and for the purposes of these regulations "pay-week" means any period of seven consecutive days as may be approved by the Commission for each port or for each employer or class or group of employers.
- (b) Where it is established to the satisfaction of the Commission that a person or class or group of persons is regularly and continuously employed in stevedoring at any such designated port by one employer only, the Commission may by special order direct that the provisions of paragraph (a) of this subsection shall not apply to such person, class or group of persons.

Recording of Contributions

(4) Contributions payable under this section shall not be recorded for any day prior to the date on which the employment commenced or prior to the date in respect of which the remuneration is payable as the case may be.

Keeping Adequate Records

6. (1) Every person who employs one or more persons in insurable employment shall keep books, records and accounts adequate for the purpose of determining contributions payable in respect of such persons, and such books, records and accounts shall be maintained for a period of at least three years, and shall include at least in respect of all his employees whether insurable or not:

- (a) the name and address of each employee;
- (b) each insurable employee's insurance number;
- (c) the actual days on which work is done by each employee or for which remuneration is payable, and the number of such days by pay periods;
- (d) the gross remuneration payable to each employee for each pay period;

Unemployment Insurance Act—continued

- (e) all deductions from the gross remuneration payable to each insurable employee for the purpose of unemployment insurance contributions;
- (f) duplicate copy of each form of requisition for unemployment insurance stamps or unemployment insurance stamp meter impressions completed by the employer or his authorized representative and presented to an authorized postmaster;
- (g) receipts obtained under subsection four of section twenty-eight of these Regulations, upon the delivery of any insurance contribution record to an employed person or a local office;
- (h) duplicate copy of each form of inventory of unemployment insurance stamps, made by an inspector of the Commission and signed by him and the employer or his representative, showing, as of its date, the amount of unemployment insurance stamps lawfully in the possession of the employer and of unemployment insurance stamp meter impressions to his credit;
- (i) in the case of an employer paying contributions by the bulk payment method, except an employer paying contributions under subsection four of section fourteen of these Regulations, a copy of each certificate of contributions delivered to the employed person on separation from employment;
- (j) the insurance number and name of any employed person for whom contributions are not being made by the employer by reason that contributions are being made in respect of him by another employer; and the name and address of such other employer; and
- (k) the number of the certificate of exemption issued in respect of any of his employees.

Computation at 3 Per Cent if Inadequate Records

- (2) (a) Where an inspector of the Commission audits the books, records and accounts of an employer, and is of the opinion that they are not adequate for the purpose of enabling him to determine, according to the other provisions of these Regulations, whether any contributions were payable for any period in respect of any or all of the employer's insurable employees, the inspector may, in respect of the employees for whom such records are in his opinion adequate, determine, according to the other provisions of these Regulations, the amount of contributions payable by the employer for such period; and the inspector may, in respect of the employees for whom such records are in his opinion inadequate, determine the amount of contributions payable by the employer for such period, on the basis of three per centum of the total remuneration, that has been paid or become payable during such period to all employees, whether insurable or not; and where, in the inspector's opinion, the employer's books, records and accounts are inadequate for the purpose of enabling the inspector to determine such remuneration, the inspector may estimate such total remuneration.
- (b) When the inspector computes or estimates the total remuneration to which the three per centum is to be applied, he shall exclude therefrom any remuneration which he is satisfied has been paid or become payable for such period to any of the employees who

Unemployment Insurance Act—continued

are not insurable and to any of the insurable employees in respect of whom the records were adequate and for whom contributions have been determined according to the other provisions of these Regulations.

Prescribed Proof under Section 68(4) of the Act

Act, (3) For the purpose of subsection four of section sixty-eight of the

- (a) the prescribed proof of the amount of unemployment insurance stamps lawfully in an employer's possession at the commencement of any period specified by an inspector, shall be, where an inventory of unemployment insurance stamps has been made by an inspector of the Commission,
- (i) the duplicate copy of the form of inventory mentioned in paragraph (h) of subsection one of this section dated immediately prior to the commencement of the period;
 - (ii) in default of such duplicate, the original thereof in the possession of the Commission;
 - (iii) in default of both the said original and duplicate, other proof satisfactory to the Inspector of the Commission requesting such prescribed proof;

and where no such inventory has been made, such proof shall be that mentioned in subparagraph (iii);

- (b) the prescribed proof of the amount of unemployment insurance stamps lawfully purchased by such employer during the said period shall be
- (i) the duplicate copy kept by the employer of each form of requisition for unemployment insurance stamps mentioned in paragraph (f) of subsection one of this section and duly filled, date stamped and receipted by the authorized postmaster or his representative, or
 - (ii) the original thereof in the possession of the Commission, or
 - (iii) in default of both the said original and duplicate, other proof satisfactory to the inspector of the Commission requesting such prescribed proof;
- (c) the prescribed proof of the amount of unemployment insurance stamps lawfully in an employer's possession at the end of any period specified by an inspector, shall be
- (i) the unemployment insurance stamps lawfully in the employer's possession at such time;
 - (ii) the duplicate copy of the form of inventory mentioned in paragraph (h) of subsection one of this section dated at the end of such period;
 - (iii) in default of such duplicate, the original thereof in the possession of the Commission;
 - (iv) in default of both the said original and duplicate, and in cases where no such inventory has been made, other proof satisfactory to the inspector of the Commission requesting such prescribed proof.

Unemployment Insurance Act—continued

Determination of Earnings

7. (1) Where an employed person's remuneration is not pecuniary or is only partly pecuniary and the whole or part of such non-pecuniary remuneration consists in his being furnished with

Where Room and Board Furnished

- (a) room and board or room or board alone, the value of such room and board or room or board alone shall be included in determining the person's earnings for contribution purposes and if the value of such room and board or room or board alone is not fixed by agreement between the employer and the employed person, so as to equal at least the scale of values provided hereunder, it shall be computed on the following scale of values:

	<i>Daily rate</i>	<i>Weekly rate</i>	<i>Monthly rate</i>
Room and board	\$1.00	\$6.00	\$26.00
Meals only .....	.75	4.50	19.50
Room only .....	.25	1.50	6.50
Individual meals ....	.25		

When Living Quarters Furnished

- (b) living quarters for himself, or for himself and family, the rental value of such living quarters shall be included in determining the person's earnings for contribution purposes and if the value of such living quarters is not fixed by agreement between the employer and the employed person, it shall be computed on the rental value of similar living quarters in the vicinity or district, or if there are no such similar living quarters in the vicinity or district, then the rental value shall be determined by the Commission and where light, heat, telephone or other considerations are supplied by the employer with such living quarters as part of such remuneration their value shall be included in computing the rental value of such living quarters;

Other Consideration

- (c) any consideration other than room and board, or room or board alone or living quarters, the value of this consideration shall be included in determining the person's earnings for contribution purposes and if the value of such consideration is not fixed by agreement between the employer and the employed person it shall be determined by the Commission, having regard to all of the circumstances.

If Non-pecuniary Remuneration not Reasonably Fixed

(2) In any case where the employer and the employed person do not of any such non-pecuniary remuneration payable by an employer to an employed person has not been fixed by agreement between the employer and the employed person at a reasonable amount when including it in the earnings of such employed person for contribution purposes, the Commission may determine the value of such remuneration.

Unemployment Insurance Act—continued*Seven Days' Work*

8. (1) Where an employed person works or remuneration is payable to him for seven days in any week, his earnings for seven days shall be considered the basis for determining his rate of contribution.

Piece Work

(2) Where an employed person is paid by the piece or on some similar basis, his weekly earnings for any period of four weeks may be determined by his average weekly earnings in the previous four weeks, and if he was not engaged on the same work during the previous four weeks, his weekly earnings shall be deemed to be equal to those payable to other persons doing similar work during the previous four weeks.

Vocational Training

(3) Where a veteran of the 1939-45 war is given vocational training on the job and receives an allowance from the Department of Veterans Affairs through his employer in addition to his wages, the earnings of such veteran shall be deemed to be the aggregate of his wages and such allowance.

Commission or Share of Profits

(4) Where an employed person is paid wholly or partly by commission or by a share of profits but not on the basis of a drawing account and his earnings vary considerably from one pay period to another, his earnings for each of any four consecutive pay periods, during which he actually receives any earnings, may, for contribution purposes, be determined by the pay period average of the earnings which he actually received in the immediately preceding four consecutive pay periods during which he was employed by the same employer for the same work and on the same basis, except where such average earnings would require the payment of contributions at the lowest rate specified in the Second Schedule to the Act; and for the purposes of this subsection only one such determination may be made in respect of any employed person in any four consecutive pay periods.

Personal Services and Other Consideration'

9. (1) Where an employed person's remuneration is not payable only for personal services and consists in his being paid a single amount for personal services and for some other consideration, and, out of this single amount, the employed person is required to provide some other consideration, the net earnings of such employed person for contribution purposes, shall be the said single amount less the value of such other consideration as determined by the employer.

Commission May Set Value of Consideration if Reasonably Fixed

(2) In any case where the employer and the employed person do not agree as to value of the other consideration, or where in the opinion of the Commission the value of this other consideration has not been fixed at a reasonable amount, the Commission may determine the value of such other consideration.

Unemployment Insurance Act—continued

Drawing Accounts

10. (1) Where an employed person's gross remuneration is payable by way of sums debited to a drawing account and the drawing account is credited with various amounts, all sums so debited shall be deemed to be earnings for the purposes of the Act and these Regulations subject to the provisions of section nine of these Regulations.

(2) For the purposes of section two of these Regulations, such employed person's pay period shall be deemed to be a monthly pay period.

(3) Where such sums are debited at intervals of more than a month, the amount of contributions payable shall be determined on the basis of the employed person's average monthly debits for the period of three months immediately preceding the date on which such contributions are payable.

PAYMENT OF CONTRIBUTIONS

METHODS OF PAYMENT

11. (1) Contributions shall be paid by one of the following methods:—

Stamp

(a) by affixing an unemployment insurance stamp or stamps obtained in accordance with these Regulations, of the requisite denomination in the weekly space or spaces indicated in the employed person's insurance book or on his insurance card for the period in respect of which the payment is being made; or

Meter

(b) by means of a metering device, used in accordance with these Regulations, impressing a stamp or stamps of the requisite denomination in the employed person's insurance book or on his insurance card in the space or spaces indicated for the period in respect of which the payment is being made; or, where the stamp or stamps to be used will not fill the said space, such stamps to be impressed at the end of such space; or

Bulk Payment

(c) by the bulk payment method; or

Adjustment Form

(d) by an adjustment form, in the case of adjustment.

Employer's Registration and Licence

(2) With such exceptions as the Commission may from time to time allow, every employer who has in his employ or who engages any person in insurable employment, shall within 72 hours after such person commences to render services apply to the Commission for a registration number and a licence to purchase stamps.

Unemployment Insurance Act—continued**STAMPS***Issue of Stamps*

12. (1) Unemployment insurance stamps to be used in payment of contributions shall be made in accordance with a design approved by the Commission and in such denominations as the Commission may from time to time fix, and such design shall not be used except for the purposes approved by the Commission.

- (2) (a) No person other than
 - (i) a postmaster authorized by the Post Office Department, at such place and subject to such conditions as may be determined by the Commission; and
 - (ii) any person or persons to whom a permit has been issued by the Commission for the sale of such unemployment insurance stamps, at such places and subject to such conditions as may be set out in such permit,shall keep for sale, offer for sale, purchase for sale, or sell, any unused unemployment insurance stamps.
- (b) No person other than an employer or his authorized representative shall obtain unused unemployment insurance stamps.
- (c) Unused unemployment insurance stamps shall be obtained only in accordance with the provisions of these Regulations, from a person authorized to sell such stamps, upon production of such employer's licence, (unless he is exempted from the requirement of obtaining a licence under subsection two of Section eleven of these Regulations), and upon completion of a form of requisition for unemployment insurance stamps approved from time to time by the Commission.
- (d) No person shall have in his possession any unused unemployment insurance stamps which he has not obtained in accordance with the Act or Regulations made thereunder.
- (e) No person shall have in his possession any used unemployment insurance stamps except while they are lawfully affixed to insurance contribution records and such records are in his possession in accordance with these Regulations.
- (f) No person shall take, or give in exchange, pawn or take in pawn, any unused unemployment insurance stamps.

Return of Unused Stamps

- (3) (a) Upon receiving an unemployment insurance stamp which has not been used for the payment of contributions, from an employer who has received a registration number or from his legal representative, and upon being satisfied that such stamp was lawfully obtained by the employer and is in addition to his requirements, the Commission may pay to the employer or his legal representative out of the Unemployment Insurance Fund the aggregate value of such stamp or issue to him unemployment insurance stamps of the same aggregate value and deduct in either case from such value, any expenses arising out of such transaction.
- (b) If any holder of a permit under this section purchases and pays for any unemployment insurance stamp pursuant to the terms of his permit, the Commission may re-purchase such stamp from him or his legal representative and may pay therefor, out of the

Unemployment Insurance Act—continued

Unemployment Insurance Fund, the value of the stamp in money, or exchange for it stamps of the same aggregate value; and the Commission may in either case deduct from such value any expenses arising out of such transaction.

Cancellation of Stamps

- (4) (a) An employer shall upon affixing any unemployment insurance stamp in an insurance book, or on an insurance card or adjustment form, cancel such stamp by writing in ink or stamping across its face his registration number, or if he has no registration number, his name.
- (b) Any person may by writing or otherwise make an identification mark, on an unemployment insurance stamp before it is used, if in the opinion of the Commission such identification mark does not destroy the legibility of the stamp.
- (c) No person shall otherwise deface any unemployment insurance stamp, either used or not, or remove any such stamp from any insurance contribution record.

METERING DEVICES

Metering Device to be Authorized

13. (1) No employer shall use a metering device for the payment of contributions, unless the use of such device has been authorized by the Commission and the authorization has not been revoked.

Design Approved by Commission

(2) The design on the impression die in all metering devices used for the payment of contributions shall be a design approved by the Commission.

(3) Such design shall not be used by any person for any other purpose without the written authorization of the Commission.

Prescribed Use

(4) Any metering device used for the payment of contributions shall be used in such manner and subject to such conditions as the Post Office Department or the Commission may from time to time determine and any officer of the Commission or the Post Office Department shall be permitted to inspect such metering device and the impression die used in connection therewith at any reasonable time.

Die To Be Surrendered

(5) Any impression die used in a metering device for payment of contributions shall be delivered to any authorized officer of the Post Office Department or of the Commission on demand made after revocation of the authority granted for use of such metering device or at any time if no such authority has been granted.

Use of Metering Device

(6) An employer who has obtained authority from the Commission to pay contributions by means of a metering device shall not use such metering device to pay contributions in respect of any employed persons other than his own employees, except by authority of the Commission.

Unemployment Insurance Act—continued*Metering Device to be Set on Payment*

(7) No employer shall use a metering device for the payment of contributions until he has paid to the Post Office Department the amount at which the metering device is to be set, nor shall he use a metering device for the payment of contributions exceeding in the aggregate the amount at which the device has been set.

Refund

(8) The Commission may refund out of the Unemployment Insurance Fund to any employer who has made any such payment the whole or any part thereof which has not been used for the payment of contributions.

Records of Contributions

(9) Each day the metering device is used by an authorized employer, he shall submit forthwith to the Post Office Department a report of the amount of contributions paid by means of the metering device in such form as the Post Office may from time to time require.

If Defect Occurs

(10) Any employer using a metering device shall notify the Post Office Department as soon as any defect occurs in the operation of the metering device and shall, upon request, deliver such metering device to the Post Office Department in the same condition as when the defect was first noticed, with full details in writing of any insurance books or cards or adjustment forms in which stamps have been imperfectly or incorrectly impressed.

Repairs to Metering Device

(11) No repairs or alterations shall be made to any metering device except by persons authorized by the Post Office Department or the Commission, nor shall any person except such authorized persons, unlock or break any lock or seal placed on a metering device.

BULK PAYMENT*Proposal to be Approved by Commission*

14. (1) An employer may submit to the Commission a proposal for payment at stated periods of aggregate contributions by bulk payment and such proposal shall provide for:

Provisions

- (a) maintenance of records in a form approved by the Commission, showing each insured person's name and insurance number and the number of days worked by each insured person and the amount of employee contributions by pay periods;
- (b) furnishing the Commission, at the end of such period as the Commission may determine, with a certified contribution statement for that period for each insured person still in his employ;
- (c) placing in the insurance book of an insured person on separation from employment certificate of contributions paid by him or on his behalf during the year;
- (d) generally furnishing any other information which the Commission may from time to time require.

Unemployment Insurance Act—continued

Conditions Precedent

(2) The Commission may require as a condition precedent to approval of any such proposal:—

- (a) an undertaking satisfactory to the Commission that he will carry out the terms of the proposal, and
- (b) a deposit, in a sum equal to the estimated amount of contributions payable by the employer during a period to be fixed by the Commission, and
- (c) such other provisions in the proposal as the Commission may from time to time determine.

Payment of Contributions

(3) Any employer whose proposal is approved by the Commission, may pay contributions in respect of the insured persons in his employ, under the provisions of section eleven of these Regulations, and the Commission may at any time rescind such approval.

Stevedoring in Designated Ports

(4) Notwithstanding other provisions of this section, any employer who employs persons in stevedoring in any of the ports designated under subsection three of Section five of these Regulations shall pay by bulk payment all contributions payable in respect of the employment of such persons and at the times of such payment shall furnish the Commission with a list showing at least:

- (a) the employer's name and address,
- (b) the pay-week,
- (c) in respect of each of the said employed persons:
 - (i) his name and identification number as may be specified by the Commission,
 - (ii) the number of contributions payable in respect of employment in each pay-week.

ADJUSTMENT

Adjustment Form

15. In cases of adjustment of contributions the Commission may allow an employer to pay any contributions unpaid or underpaid, through the use of an adjustment form approved by the Commission.

AMOUNT OF PAYMENTS

Stamp Contributions

16. (1) (a) Contributions paid by means of stamps shall be calculated on the basis of the rates shown in the Second Schedule to the Act.

Table of Contributions for Metering

(b) Contributions paid by means of a metering device shall be calculated on the rates shown in Schedule A to these Regulations.

Unemployment Insurance Act—continued*Bulk Payment Contributions*

- (c) Subject to paragraph (d) hereof, contributions paid by the bulk payment method shall be calculated by multiplying the number of days for which contributions are payable by one-sixth of the weekly rate of contributions set out in the Second Schedule to the Act.

Stevedoring in Designated Ports

- (d) Notwithstanding the provisions of paragraph (c) of this subsection and other provisions of the Act, contributions paid under the provisions of subsection four of Section fourteen of these Regulations shall be calculated, where the divisor under subsection three of Section five of these Regulations is less than five dollars and fifty cents per day, on the basis of the rate of contributions specified in Class seven of the Second Schedule to the Act, and where such divisor is five dollars and fifty cents or more per day, shall be calculated on the basis of the rate of contributions specified in Class eight of the said Schedule.

Table of Deduction from Wages

- (2) Where contributions are made by means of stamps, by a metering device or by the bulk payment method, any deduction to be made by the employer from the remuneration of the employed person shall be made on the basis of the rates shown in Schedule A to these Regulations.

Calculation of Fractions

- (3) (a) Where any deduction from the remuneration of an employed person involves a fraction of a cent, from January the first to June the thirtieth inclusive in any year the employer may increase the deduction to the next full cent and from July the first to December the thirty-first inclusive in any year the employer shall decrease the deduction by the fractional cent.
- (b) Where the total contribution to be made by a metering device involves a fraction of a cent, from January the first to June the thirtieth inclusive in any year the employer shall increase the contribution to the next full cent and from July the first to December the thirty-first inclusive in any year the employer may decrease the contribution by the fractional cent.

Amount of Interim Payments

17. If an application is made to the Commission to determine any question involving liability to pay contributions or the amount or the rate of contributions payable in respect of any person, the largest amount considered by the Commission to be payable as contributions shall be paid from time to time as required by these Regulations until the question has been determined by the Commission or by the Umpire, and any contribution which then appears to have been erroneously paid may be repaid pursuant to the provisions of section nineteen of these Regulations.

Unemployment Insurance Act—continued

TIME FOR PAYMENT OF CONTRIBUTIONS

During Employment

18. (1) During the employment of an employed person, contributions shall be paid by the employer within seventy-two hours after each day on which any wages or other earnings become payable to that person and, subject to subsection five of this section, shall be paid in respect of the pay period for which such wages or earnings are payable.

Upon Separation

(2) Where the employed person separates from insurable employment, the employer shall pay all contributions which remain unpaid, immediately upon separation.

Where no Pecuniary Remuneration

(3) In any case coming under subsection three of section nineteen of the Act, contributions shall be paid by the employer at least once a week or at least once in such other period as may be fixed by the Commission in any such case or class of such cases, and each payment shall be in respect of one week's contributions or in respect of the contribution for such other period as the case may be.

Drawing Accounts

(4) Notwithstanding anything contained in subsection one of this Section, where an employed person's gross remuneration is payable by sums debited to a drawing account and the drawing account is credited with various amounts, contributions shall be paid by the employer within seventy-two hours after the end of each month.

(5) Notwithstanding anything contained in subsection one of this section, where an employed person's earnings are payable semi-monthly or monthly and contributions in respect of him are paid by affixing unemployment insurance stamps, the employer may, as an alternative to paying the contributions in respect of the whole pay period within seventy-two hours after the day on which the earnings for such period become payable, pay the contributions for the calendar weeks which fall completely within such pay periods plus any portion of the previous pay period in respect of which contributions have not been paid; but contributions which remain unpaid in respect of any portion of any such pay period shall, in any event, be payable within seventy-two hours of the next day on which earnings become payable by the employer to such employed person.

Contributions Determined under Section 68 (4) of Act

(6) Notwithstanding anything contained in subsections one and two of this section, where contributions payable are determined under subsection four of section sixty-eight of the Act, such contributions shall be paid within twenty-four hours of the receipt by the employer of a written demand for payment signed by an inspector of the Commission.

Stevedoring in Designated Ports

(7) Notwithstanding the provisions of subsections one and two of this section, where contributions are payable under subsection four of Section fourteen of these Regulations, contributions shall be paid by the

Unemployment Insurance Act—continued

employer during the employment of an employed person in respect of whom contributions are so payable, immediately at the end of each pay-week, as defined in the said subsection, and where such an employed person separates from his employment, all unpaid contributions shall be paid by the employer within seventy-two hours after the day on which his wages or other earnings became payable to the said person.

REFUNDS OF CONTRIBUTIONS*Contributions Paid Erroneously*

19. (1) The Commission may repay any employer's contribution, or any part thereof, to the employer by whom it was paid or to his legal representative upon being satisfied that such contribution, or such part thereof, was paid under the erroneous belief that it was payable in respect of the employee for whom it was paid.

(2) The Commission may repay to an employer or his legal representative any contribution, or any part thereof, paid on behalf of one of his employees, upon being satisfied that such contribution, or such part thereof, was paid under the erroneous belief that it was payable in respect of such employee and upon being satisfied that his employer has not recovered such contribution from such employee.

(3) The Commission may repay to any employee or his legal representative, direct or through the employer by whom the contribution has been paid, a contribution which has been paid on his behalf, or any part thereof, upon being satisfied that such contribution, or such part thereof, was paid under the erroneous belief that it was payable in respect of him and upon being satisfied that the employer who paid such contribution has recovered the same from him.

Application for Refund

(4) Application for any refund under this section shall be made in a form satisfactory to the Commission within two years from the date on which the contribution was paid; but if the Commission is satisfied that in any case the contribution was paid on the direction of an officer of the Commission, or under other special circumstances, an application for a refund may be made at any time within five years from such date; and where in any case benefit has been paid to the employee, an application for a refund shall be made at any time within three years from the end of the insurance year, ending on March thirty-first, in which an application for benefit was made which resulted in the payment of benefit.

(5) No application for a refund of contributions under this section for an amount less than fifty cents shall be considered.

(6) Such refunds shall be made from the Unemployment Insurance Fund and in the case of contributions made on behalf of an employee shall be decreased by the amount of any benefit received by him.

(7) The Commission may deduct from the value of any refund of contributions any expenses arising out of such transactions.

(8) If any employer makes an overpayment or an underpayment of contributions in an amount not exceeding five dollars, any inspector may refund to such employer the amount of the overpayment, in cash, or may accept on behalf of the Receiver General, in cash, the amount of this underpayment, and shall render to an authorized treasury officer an

Unemployment Insurance Act—continued

accounting of disbursements made in respect of refunds of contributions and of money received in respect of underpayments of contributions, at such times and in such manner as the treasury officer may direct.

Certain Contributions May Be Considered by the Commission as No Longer Owing

20. Contributions payable under the Act which are due and owing to the Unemployment Insurance Fund by a person who has failed or neglected to pay such contributions may be considered by an authorized officer of the Commission no longer due and owing to the Fund, where

- (a) the contributions are owing from a discharged bankrupt, or
- (b) the contributions have not been paid within five years from the date on which they became payable, or
- (c) on settlement of an estate the assets are insufficient to satisfy the contributions owing or are only sufficient to satisfy them in part, or
- (d) in accordance with instructions issued by the Commission, the contributions owing are declared to be uncollectible.

CONTRIBUTION RECORDS

21. (1) Contributions paid under the Act and these Regulations shall be recorded, in the first instance, by the employer on one of the following insurance contribution records:

Contribution Records

- (a) an insurance book,
- (b) an insurance card,
- (c) a contribution statement, in the case of payment by the bulk payment method, or
- (d) an adjustment form provided by the Commission.

Contribution Ledger Cards

(2) The Commission may make a compilation, extract, or posting, by periods which may be other than the periods indicated on the insurance contribution records, of particulars of the employer's or the employee's contributions, or both, paid in respect of an employed person for any period or periods, and such compilation, extract or posting shall be based on such employed person's insurance contribution records in the Commission's possession, and shall be recorded as entries on a contribution ledger card in such form and in such manner as the Commission from time to time may determine; and the contributions so recorded shall be deemed to be the contributions paid under the Act and these Regulations, in respect of such employed person for the periods indicated on such contribution ledger card, and the Commission may microfilm any insurance contribution record or any such contribution ledger card, and for the purpose of the Act and these Regulations, a print, whether enlarged or not, of such microfilm shall be deemed to be the insurance contribution record or contribution ledger card pertaining to such employed person.

Stevedoring in Designated Ports—Recording of Contributions

- (3) (a) Notwithstanding any provision of the Act or these Regulations, contributions paid under subsection four of Section fourteen hereof, in respect of an employed person's employment in stevedoring in

Unemployment Insurance Act—continued

any of the ports designated under subsection three of Section five hereof, shall be recorded in the first instance by the Commission in such manner and at such times as the Commission may determine; provided, however, that the Commission shall not be required to record contributions in respect of such employment by any person who has not registered as a stevedore at the local office in the port where the employment took place.

- (b) Such contributions paid in respect of employment in any pay-week of an employer shall be recorded by the Commission (insofar as their number will permit) successively, one per day, for each of the days, other than Sundays, in that pay-week and in the two weeks next thereafter for which no contribution is recorded, but in no case shall a contribution paid in respect of employment in any pay-week be recorded for a day subsequent to the two weeks next thereafter, nor shall contributions in respect of such employment occurring in any port prior to the commencement of any off-season prescribed for stevedoring for that port be recorded for any days in such off-season.

Contribution Records Generally

22. (1) Whenever an employer takes a person into his employ in insurable employment, he shall forthwith take possession of such person's insurance contribution records, if such person has any, and ascertain his insurance number, if such a person has any and such person shall forthwith, upon being taken into such employment, deliver such insurance contribution records or give such number, as the case may be, to such employer.

(2) If, because the employed person has no insurance contribution records or does not deliver his records to the employer or for any reason the employer does not or cannot take possession of such records as required by subsection one of this section, the employer shall, if making contributions by means of the bulk payment method, apply to the local office servicing the area of the employer's establishment for an insurance number for such person unless he has ascertained such person's insurance number as required by subsection one of this section, the burden of proof of which shall be on the employer, and if making contributions by means of stamps or a metering device shall apply to the said local office for an insurance book for such person.

(3) The employer shall make the appropriate application in such form as may be approved by the Commission and within seventy-two hours after such person commences to render services, but if such person separates from such employment within the said seventy-two hours, the employer shall make the application not later than the last day on which such person performed services for the employer.

Insurance Books

23. (1) Every employer paying contributions by means of stamps or a metering device shall apply to the local office servicing the area of the employer's establishment for an insurance book for each person employed by him in insurable employment who is not in possession of an insurance book for the current year ending on the thirty-first day of March, and shall record therein the contributions made under these methods.

(2) Every employer paying contributions by means of the bulk payment method, except an employer paying contributions under subsection four of section fourteen of these Regulations, shall, prior to separation from

Unemployment Insurance Act—continued

employment of an employed person, apply to the local office servicing the area of the employer's establishment for an insurance book, and deliver it to the said person at the time of separation.

(3) Every employer who receives an insurance book from an employed person, except an employer paying contributions under subsection four of section fourteen of these Regulations, shall retain the book in his possession for the purpose of making contributions required under the Act during the period that person continues in his employment, and an employer who pays contributions under subsection four of Section fourteen of these Regulations shall immediately forward the insurance book to the Commission.

Insurance Cards

24. Any employer or class of employers designated by the Commission may record contributions on an insurance card, subject to such conditions as the Commission may from time to time require.

Contribution Statements

25. Every employer paying contributions in respect of any employed person in his employ by the bulk payment method, except an employer paying contributions under subsection four of Section fourteen of these Regulations, shall record the contributions made under this method on a contribution statement form approved by the Commission, and a certificate of such contributions signed by the employer or his representative, shall be delivered, together with his insurance book, to the employed person on separation from employment.

Adjustment Form

26. Every employer paying contributions in cases of adjustment shall record his contributions on an adjustment form, authorized by the Commission.

Registration Card

27. Any employer who receives from the Commission a registration card for an employee shall forthwith deliver the card to the employee.

Disposition of Contribution Records

28. (1) (a) When an employed person becomes separated from his employment, his employer shall deliver his insurance contribution records to him not later than the last day on which services are performed for the employer.
- (b) Where in the opinion of an officer of the Commission it is not practicable to deliver the records to him, the employer shall deliver the records to the local office servicing the area of the employer's establishment within one week after the last day on which services are performed by the employed person.
- (c) Where an employed person dies, the holder of his insurance contribution records shall inscribe legibly thereon the word "deceased", and immediately deliver the records to the local office of the Commission servicing the area of the holder's residence.

Unemployment Insurance Act—continued

(2) If any person who is not in insurable employment is, at any time, in possession of any insurance contribution records in respect of former employment, he shall deliver them to the local office servicing the area of the person's residence and no person shall, at any time, except as authorized by an officer of the Commission, have in his possession more than one insurance book for any year.

(3) If a person dies or becomes permanently incapacitated while in possession of his insurance contribution records, any relative, legal representative or other person into whose possession the insurance contribution records may come shall forthwith deliver them to the local office servicing the area of his residence.

(4) Upon any delivery of any insurance contribution records, pursuant to these Regulations, the employer shall obtain a receipt therefor from the employed person or the local office, as the case may be.

(5) Any person who obtains possession of insurance contribution records to which he is not entitled shall forthwith deliver them to the local office servicing the area of the person's residence.

Safeguarding Insurance Contribution Records

29. (1) An employer or other person shall keep all insurance contribution records in his possession or custody safe and free from defacement or destruction.

(2) The employed person, his employer or an officer of the Commission may alter the employed person's surname in case of change by marriage or such person's address as recorded in his insurance contribution records and no person shall otherwise deface or destroy an insurance contribution record or alter any of the figures or particulars therein except an officer of the Commission as directed by the Commission from time to time.

(3) An employer shall upon request produce for inspection to any officer of the Commission the insurance contribution records which were issued in respect of any employed person in his employ and any person shall upon request produce for inspection to any officer of the Commission any insurance contribution records in his possession or custody, and any such officer may in his discretion take possession of and retain any insurance contribution records.

(4) If the insurance contribution records of any employed person are destroyed, lost or defaced, the Commission may issue new insurance contribution records and may charge the person responsible for their custody at the time they were destroyed, lost or defaced, the sum of one dollar.

(5) If insurance contribution records are destroyed, lost or defaced, the Commission may credit the employed person with payment of contributions in respect of periods of employment with respect to which contributions on his behalf are to the satisfaction of the Commission shown to have been paid.

(6) Where insurance contribution records have been destroyed, lost or defaced, and the insurance number is not supplied to the Commission, the Commission may decline to take any steps to trace the record of contributions of the employed person whose insurance contribution records have been destroyed, lost or defaced.

Unemployment Insurance Act—continued

(7) Subject to subsection 2 of this section no person, except an officer of the Commission as directed by the Commission from time to time, shall alter, deface, or destroy any document or thing used in the administration of the Act and Regulations made thereunder.

Return at End of Year

30. At the close of each insurance year ending on the thirty-first day of March, or at such other times as the Commission may require, every employer shall return all insurance contribution records in his possession to the local office servicing the area of the employer's establishment and furnish such information as may be required by the Commission for the issuance of insurance contribution records for the succeeding period.

Inspection by Employee

31. (1) Every employer shall from time to time upon request give each employed person in his employ an opportunity of inspecting his insurance contribution records as long as they are in the custody of the employer, but such person shall be entitled to inspect his insurance contribution records not more than twice in any month and only at such reasonable times, either within or immediately before or after that person's working hours, as may be fixed by his employer for the purpose.

(2) The Commission shall, upon request, give each employed person employed in stevedoring in any of the ports designated under subsection three of Section five of these regulations, a similar opportunity of inspecting his insurance contribution records so long as they are in its custody.

Procedure for Determination of Question and Appeals

32. If any question arises as to who is or was the employer of any employed person, as to the rate of contribution payable under the Act by or in respect of any person or class of persons, or as to the rates of contribution payable in respect of any employed person by the employer and that person respectively, that question shall be decided by the Commission under section forty-five of the Act, subject to an appeal to the Umpire under section forty-six of the Act, and the procedure applicable in such instances shall be that provided in Section eleven to Section twenty-eight inclusive of The Unemployment Insurance Coverage Regulations, 1949.

Unemployment Insurance Act—continued

TABLE OF CONTRIBUTIONS FOR METERING DEVICES

TABLE OF DEDUCTIONS FROM WAGES, FOR STAMPS,
METERING DEVICES AND BULK PAYMENT METHOD

WAGE CLASS	1 DAY					2 DAYS					3 DAYS					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$.89	.03	—	.63	\$ —	\$ 1.79	.06	—	.06	\$ —	\$ 2.69	.09	—	.09	0
1	.90	1.24	.03	.02	.05	1.80	2.49	.06	.04	.10	2.70	3.74	.09	.06	.15	1
2	1.25	1.59	.04	.02½	.06½	2.50	3.19	.08	.05	.13	3.75	4.79	.12	.07½	.19½	2
3	1.60	1.99	.04	.03	.07	3.20	3.99	.08	.06	.14	4.80	5.99	.12	.09	.21	3
4	2.00	2.49	.04	.03½	.07½	4.00	4.99	.08	.07	.15	6.00	7.49	.12	.10½	.22½	4
5	2.50	3.32	.04	.04	.08	5.00	6.66	.08	.08	.16	7.50	9.99	.12	.12	.24	5
6	3.33	4.32	.05	.05	.10	6.67	8.66	.10	.10	.20	10.00	12.99	.15	.15	.30	6
7	4.33	5.66	.06	.06	.12	8.67	11.33	.12	.12	.24	13.00	16.99	.18	.18	.36	7
8	5.67	AND OVER	.07	.07	.14	11.34	AND OVER	.14	.14	.28	17.00	AND OVER	.21	.21	.42	8
WAGE CLASS	4 DAYS					5 DAYS					6 DAYS ★					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 3.59	.12	—	.12	\$ —	\$ 4.49	.15	—	.15	\$ —	\$ 5.39	.18	—	.18	0
1	3.60	4.99	.12	.08	.20	4.50	6.24	.15	.10	.25	5.40	7.49	.18	.12	.30	1
2	5.00	6.39	.16	.10	.26	6.25	7.99	.20	.12½	.32½	7.50	9.59	.24	.15	.39	2
3	6.40	7.99	.16	.12	.28	8.00	9.99	.20	.15	.35	9.60	11.99	.24	.18	.42	3
4	8.00	9.99	.16	.14	.30	10.00	12.49	.20	.17½	.37½	12.00	14.99	.24	.21	.45	4
5	10.00	13.32	.16	.16	.32	12.50	16.66	.20	.20	.40	15.00	19.99	.24	.24	.48	5
6	13.33	17.32	.20	.20	.40	16.67	21.66	.25	.25	.50	20.00	25.99	.30	.30	.60	6
7	17.33	22.66	.24	.24	.48	21.67	28.32	.30	.30	.60	26.00	33.99	.36	.36	.72	7
8	22.67	AND OVER	.28	.28	.56	28.33	AND OVER	.35	.35	.70	34.00	AND OVER	.42	.42	.84	8
WAGE CLASS	7 DAYS					8 DAYS					9 DAYS					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 6.29	.21	—	.21	\$ —	\$ 7.19	.24	—	.24	\$ —	\$ 8.09	.27	—	.27	0
1	6.30	8.74	.21	.14	.35	7.20	9.99	.24	.16	.40	8.10	11.24	.27	.18	.45	1
2	8.75	11.19	.28	.17½	.45½	10.00	12.79	.32	.20	.52	11.25	14.39	.36	.22½	.58½	2
3	11.20	13.99	.28	.21	.49	12.80	15.99	.32	.24	.56	14.40	17.99	.36	.27	.63	3
4	14.00	17.49	.28	.24½	.52½	16.00	19.99	.32	.28	.60	18.00	22.49	.36	.31½	.67½	4
5	17.50	23.32	.28	.28	.56	20.00	26.66	.32	.32	.64	22.50	29.99	.36	.36	.72	5
6	23.33	30.32	.35	.35	.70	26.67	34.66	.40	.40	.80	30.00	38.99	.45	.45	.90	6
7	30.33	39.66	.42	.42	.84	34.67	45.32	.48	.48	.96	39.00	50.99	.54	.54	1.08	7
8	39.67	AND OVER	.49	.49	.98	45.33	AND OVER	.56	.56	1.12	51.00	AND OVER	.63	.63	1.26	8

Unemployment Insurance Act—continued

TABLE OF CONTRIBUTIONS FOR METERING DEVICES

TABLE OF DEDUCTIONS FROM WAGES, FOR STAMPS,
METERING DEVICES AND BULK PAYMENT METHOD

WAGE CLASS	10 DAYS					11 DAYS					12 DAYS ★★					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 8.99	.30	—	.30	\$ —	\$ 9.89	.33	—	.33	\$ —	\$ 10.79	.36	—	.36	0
1	9.00	12.49	.30	.20	.50	9.90	13.74	.33	.22	.55	10.80	14.99	.36	.24	.60	1
2	12.50	15.99	.40	.25	.65	13.75	17.59	.44	.27	.71	15.00	19.19	.48	.30	.78	2
3	16.00	19.99	.40	.30	.70	17.60	21.99	.44	.33	.77	19.20	23.99	.48	.36	.84	3
4	20.00	24.99	.40	.35	.75	22.00	27.49	.44	.38	.82	24.00	29.99	.48	.42	.90	4
5	25.00	33.32	.40	.40	.80	27.50	36.66	.44	.44	.88	30.00	39.99	.48	.48	.96	5
6	33.33	43.32	.50	.50	1.00	36.67	47.66	.55	.55	1.10	40.00	51.99	.60	.60	1.20	6
7	43.33	56.66	.60	.60	1.20	47.67	62.32	.66	.66	1.32	52.00	67.99	.72	.72	1.44	7
8	56.67	AND OVER	.70	.70	1.40	62.33	AND OVER	.77	.77	1.54	68.00	AND OVER	.84	.84	1.68	8
0	13 DAYS †					14 DAYS					15 DAYS					0
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 11.69	.39	—	.39	\$ —	\$ 12.59	.42	—	.42	\$ —	\$ 13.49	.45	—	.45	0
1	11.70	16.24	.39	.26	.65	12.60	17.49	.42	.28	.70	13.50	18.74	.45	.30	.75	1
2	16.25	20.79	.52	.32	.84	17.50	22.39	.56	.35	.91	18.75	23.99	.60	.37	.97	2
3	20.80	25.99	.52	.39	.91	22.40	27.99	.56	.42	.98	24.00	29.99	.60	.45	1.05	3
4	26.00	32.49	.52	.45	.97	28.00	34.99	.56	.49	1.05	30.00	37.49	.60	.52	1.12	4
5	32.50	43.32	.52	.52	1.04	35.00	46.66	.56	.56	1.12	37.50	49.99	.60	.60	1.20	5
6	43.33	56.32	.65	.65	1.30	46.67	60.66	.70	.70	1.40	50.00	64.99	.75	.75	1.50	6
7	56.33	73.66	.78	.78	1.56	60.67	79.33	.84	.84	1.68	65.00	84.99	.90	.90	1.80	7
8	73.67	AND OVER	.91	.91	1.82	79.34	AND OVER	.98	.98	1.96	85.00	AND OVER	1.05	1.05	2.10	8
0	16 DAYS					17 DAYS					18 DAYS					0
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 14.39	.48	—	.48	\$ —	\$ 15.29	.51	—	.51	\$ —	\$ 16.19	.54	—	.54	0
1	14.40	19.99	.48	.32	.80	15.30	21.24	.51	.34	.85	16.20	22.49	.54	.36	.90	1
2	20.00	25.59	.64	.40	1.04	21.25	27.19	.68	.42	1.10	22.50	28.79	.72	.45	1.17	2
3	25.60	31.99	.64	.48	1.12	27.20	33.99	.68	.51	1.19	28.80	35.99	.72	.54	1.26	3
4	32.00	39.99	.64	.56	1.20	34.00	42.49	.68	.59	1.27	36.00	44.99	.72	.63	1.35	4
5	40.00	53.32	.64	.64	1.28	42.50	56.66	.68	.68	1.36	45.00	59.99	.72	.72	1.44	5
6	53.33	69.32	.80	.80	1.60	56.67	73.66	.85	.85	1.70	60.00	77.99	.90	.90	1.80	6
7	69.33	90.66	.96	.96	1.92	73.67	96.32	1.02	1.02	2.04	78.00	101.99	1.08	1.08	2.16	7
8	90.67	AND OVER	1.12	1.12	2.24	96.33	AND OVER	1.19	1.19	2.38	102.00	AND OVER	1.26	1.26	2.52	8

Unemployment Insurance Act—continued

TABLE OF CONTRIBUTIONS FOR METERING DEVICES

TABLE OF DEDUCTIONS FROM WAGES, FOR STAMPS,
METERING DEVICES AND BULK PAYMENT METHOD

WAGE CLASS	19 DAYS					20 DAYS					21 DAYS					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 17.09	\$.57	—	\$.57	\$ —	\$ 17.99	\$.60	—	\$.60	\$ —	\$ 18.89	\$.63	—	\$.63	0
1	17.10	23.74	.57	.33	.95	18.00	24.99	.60	.40	1.00	18.90	26.24	.63	.42	1.05	1
2	23.75	30.39	.76	.47	1.23	25.00	31.99	.80	.50	1.30	26.25	33.59	.84	.52	1.36	2
3	30.40	37.99	.76	.57	1.33	32.00	39.99	.80	.60	1.40	33.60	41.99	.84	.63	1.47	3
4	38.00	47.49	.76	.65	1.42	40.00	49.99	.80	.70	1.50	42.00	52.49	.84	.73	1.57	4
5	47.50	63.32	.76	.76	1.52	50.00	66.66	.80	.80	1.60	52.50	69.99	.84	.84	1.68	5
6	63.33	82.32	.95	.95	1.90	66.67	85.66	1.00	1.00	2.00	70.00	90.99	1.05	1.05	2.10	6
7	82.33	107.60	1.14	1.14	2.28	86.67	113.32	1.20	1.20	2.40	91.00	118.99	1.26	1.26	2.52	7
8	107.67	AND OVER	1.33	1.33	2.66	113.33	AND OVER	1.40	1.40	2.80	119.00	AND OVER	1.47	1.47	2.94	8
WAGE CLASS	22 DAYS					23 DAYS					24 DAYS					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 19.79	\$.66	—	\$.66	\$ —	\$ 20.69	\$.69	—	\$.69	\$ —	\$ 21.59	\$.72	—	\$.72	0
1	19.80	27.49	.65	.44	1.10	20.70	28.74	.69	.46	1.15	21.60	29.99	.72	.48	1.20	1
2	27.50	35.19	.88	.55	1.43	28.75	36.79	.92	.57	1.49	30.00	38.39	.96	.60	1.56	2
3	35.20	43.99	.88	.66	1.54	36.80	45.99	.92	.69	1.61	38.40	47.99	.96	.72	1.68	3
4	44.00	54.99	.88	.77	1.65	46.00	57.49	.92	.80	1.72	48.00	59.99	.96	.84	1.80	4
5	55.00	73.32	.88	.88	1.76	57.50	76.66	.92	.92	1.84	60.00	79.99	.96	.96	1.92	5
6	73.33	95.32	1.10	1.10	2.20	76.67	99.66	1.15	1.15	2.30	80.00	103.99	1.20	1.20	2.40	6
7	95.33	124.66	1.32	1.32	2.64	99.67	130.32	1.38	1.38	2.76	104.00	135.99	1.44	1.44	2.88	7
8	124.67	AND OVER	1.54	1.54	3.08	130.33	AND OVER	1.61	1.61	3.22	136.00	AND OVER	1.68	1.68	3.36	8
WAGE CLASS	25 DAYS					26 DAYS					27 DAYS					WAGE CLASS
	EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			EARNING		CONTRIBUTIONS			
	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	FROM	TO	EMPLOYER	EMPLOYEE DEDUCTION	TOTAL	
0	\$ —	\$ 22.49	\$.75	—	\$.75	\$ —	\$ 23.39	\$.78	—	\$.78	\$ —	\$ 24.29	\$.81	—	\$.81	0
1	22.50	31.24	.75	.50	1.25	23.40	32.49	.78	.52	1.30	24.30	33.74	.81	.54	1.35	1
2	31.25	39.99	1.00	.62	1.62	32.50	41.59	1.04	.65	1.69	33.75	43.19	1.08	.67	1.75	2
3	40.00	49.99	1.00	.75	1.75	41.60	51.99	1.04	.78	1.82	43.20	53.99	1.08	.81	1.89	3
4	50.00	62.49	1.00	.87	1.87	52.00	64.99	1.04	.91	1.95	54.00	67.49	1.08	.94	2.02	4
5	62.50	83.32	1.00	1.00	2.00	65.00	86.66	1.04	1.04	2.08	67.50	89.99	1.08	1.08	2.16	5
6	83.33	108.32	1.25	1.25	2.50	86.67	112.66	1.30	1.30	2.60	90.00	116.99	1.35	1.35	2.70	6
7	108.33	141.66	1.50	1.50	3.00	112.67	147.32	1.56	1.56	3.12	117.00	152.99	1.62	1.62	3.24	7
8	141.67	AND OVER	1.75	1.75	3.50	147.33	AND OVER	1.82	1.82	3.64	153.00	AND OVER	1.89	1.89	3.78	8

Unemployment Insurance Act—continued

PART IV

THE UNEMPLOYMENT INSURANCE BENEFIT REGULATIONS, 1949

Definitions

1. In these Regulations

- (a) "Claimant" means any insured person who applies for or is in receipt of benefit under the provisions of the Act and these Regulations;
- (b) "court" means a court of referees constituted under section fifty-three of the Act;
- (c) "employers' panel" means a panel of persons constituted under subsection two of section fifty-three of the Act to represent employers;
- (d) "insurance officer" means any officer or employee of the Commission authorized to be an insurance officer pursuant to the provisions of subsection one of section fifty-two of the Act;
- (e) "insured persons' panel" means a panel of persons constituted under subsection two of section fifty-three of the Act to represent insured persons;
- (f) "local office" means an office established by the Commission in any locality and includes any office designated by the Commission as such.

Application for Initial Claim in the Prescribed Manner

- 2. (1) (a)** Any claimant, except a postal claimant under paragraph (b) of this subsection, who desires to make an initial claim for benefit in the prescribed manner under the provisions of Section 28 (1) (c) of the act, shall, in such manner as the Commission may from time to time direct,
 - (i) attend at the local office servicing the area of his residence and register for employment;
 - (ii) make a claim for benefit at such local office;
 - (iii) lodge or make arrangements to lodge his insurance contribution records at such local office, unless an officer of the Commission dispenses with such lodging in any particular case;
 - (iv) furnish such evidence as may be required regarding any dependent for whom he is claiming; and
 - (v) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving benefit, as may be required, and for that purpose attend at such offices or places as directed.

Postal Claimant

- (b) Any claimant (hereinafter referred to as a "postal claimant") whose residence is in excess of such a distance from such local office, or whose travelling expenses to and from such local office are in excess of such an amount, as the Commission may from time to time determine for the purpose, who desires to make such an initial claim, shall, through the mail, or in person if so directed, in such manner as the Commission may from time to time direct
 - (i) register for employment at such local office;
 - (ii) make a claim for benefit at such local office;

Unemployment Insurance Act—continued

- (iii) lodge or make arrangements to lodge his insurance contribution records at such local office, unless an officer of the Commission dispenses with such lodging in any particular case;
- (iv) furnish such evidence as may be required regarding any dependent for whom he is claiming; and
- (v) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving benefit, as may be required, and for that purpose attend at such offices or places as directed.

Procedure for Application for Renewal Claim

- (2) (a) Any claimant, except a postal claimant under paragraph (b) of this subsection, who desires to make a renewal claim for benefit in the same benefit year as the initial claim mentioned in subsection (1) of this section, namely, a claim made after the claimant has failed to report on two or more consecutive reporting days for the purpose of making continuing claims, shall, in such manner as the Commission may from time to time direct
 - (i) attend at the local office servicing the area of his residence and register for employment;
 - (ii) make a claim for benefit at such local office;
 - (iii) lodge or make arrangements to lodge his insurance contribution records at such local office, unless an officer of the Commission dispenses with such lodging in any particular case;
 - (iv) furnish such evidence as may be required regarding any dependent for whom he is claiming; and
 - (v) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving benefit, as may be required, and for that purpose attend at such offices or places as directed.

Postal Claimants

- (b) Any postal claimant, as described in paragraph (b) of subsection (1) of this section, who desires to make a renewal claim for benefit, shall, through the mail or in person, if so directed, in such manner as the Commission may from time to time direct
 - (i) register for employment at the local office servicing the area of his residence;
 - (ii) make a claim for benefit at such local office;
 - (iii) lodge or make arrangements to lodge his insurance contribution records at such local office, unless an officer of the Commission dispenses with such lodging in any particular case;
 - (iv) furnish such evidence as may be required regarding any dependent for whom he is claiming; and
 - (v) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving benefit, as may be required and for that purpose attend at such offices or places as directed.

Procedure on Continuing Claim

- (3) (a) Any claimant, except a postal claimant under paragraph (b) of this subsection, who desires to make a continuing claim for benefit in the same benefit year as the initial claim mentioned in sub-paragraph (1) of this section, namely, a claim made at intervals after an initial or renewal claim, shall, in such manner as the Commission may from time to time direct

Unemployment Insurance Act—continued

- (i) attend at the local office at which he made his last initial or renewal claim for benefit or at such other local office as may be approved in his case and apply for employment;
- (ii) make a claim for benefit at such local office;
- (iii) produce his insurance contribution records for inspection at such local office;
- (iv) furnish such evidence as may be required that the conditions respecting the dependent for whom he is claiming have not changed, or if they have changed, furnish such evidence as may be required regarding any dependent for whom he is claiming;
- (v) as proof of being unemployed, capable of and available for work and unable to obtain suitable employment, attend at such local office on such day or days and at such time or times as an officer of the Commission may direct and sign an unemployment register; and
- (vi) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving or continuing to receive benefit as may be required, and for that purpose attend at such office or place as directed.

Postal Claim

- (b) Any postal claimant, as described in paragraph (b) of subsection (1) of this section, who desires to make a continuing claim for benefit in the same benefit year, shall, through the mail or in person if so directed in such manner as the Commission may from time to time direct
 - (i) apply for employment at the local office at which he made his last initial or renewal claim for benefit or at such other local office as may be approved in his case;
 - (ii) make a claim for benefit at such local office;
 - (iii) produce his insurance contribution records for inspection at such local office;
 - (iv) furnish such evidence as may be required that the conditions respecting the dependent for whom he is claiming have not changed, or if they have changed, furnish such evidence as may be required regarding any dependent for whom he is claiming;
 - (v) furnish such other evidence as to the fulfilment of the conditions and the absence of disqualification for receiving or continuing to receive benefit as may be required, and for that purpose attend at such office or place as directed; and
 - (vi) as proof of being unemployed, capable of and available for work and unable to obtain suitable employment, forward to such local office a special unemployment register signed by him and certified by such persons as may be determined by the Commission from time to time, or if directed, attend at such local office and sign the unemployment register.

Certain Dependent Persons

(4) For the purpose of carrying out the provisions of paragraph (d) of subsection 2 of Section thirty-one of the Act,

- (a) a "self-contained domestic establishment" shall mean a dwelling house, apartment, or other similar place of residence in which residence, among other things, the dependent for whom the insured person claims, as a general rule, sleeps and has his meals.

Unemployment Insurance Act—continued

- (b) "connected by blood relationship" shall refer only to the insured person's parents, grandparents, great grandparents, children, grandchildren, great grand-children, brothers, sisters, uncles, aunts, nephews and nieces;
 - (c) "connected by marriage" shall refer only to the parents, grandparents, great grandparents, brothers and sisters of the insured person's spouse and his step children; and
 - (d) "connected by adoption" shall refer to children adopted by process of law or otherwise.
 - (e) Where the dependent mentioned in paragraphs (a) or (c) of the said subsection receives an earned income in excess of \$12 a week and the dependent mentioned in paragraphs (b) or (d) of the said subsection receives an income in excess of \$12 a week from any source, such dependent shall not be considered as being maintained wholly or mainly by the claimant or as being dependent on the claimant.
- (5) Any statement set out in material presented pursuant to this section may be accepted as true unless the contrary is proven.

(6) An officer of the Commission may, pursuant to general or specific directions of the Commission, in any particular case or in any class or group of cases, dispense with or vary the requirements of any of the provisions of subsections one, two and three of this section, and in any such case a claimant shall furnish such evidence, or attend at a local office, as may be required.

Extension of Two-year Period

3. An insured person who requests that the period of two years specified in the first statutory condition be extended, as provided in subsection three of section twenty-eight of the Act, shall prove any of the required facts at such times and in such manner as the Commission may from time to time direct.

Employer to Furnish Evidence

4. The Commission may require any employer for whom the claimant has worked to furnish any information relevant to the claim and such employer shall furnish any such information in his possession within such time after it is requested as to the Commission seems reasonable.

Entitlement to Benefit

5. (1) For the purposes of this section, a day for which remuneration is payable to a claimant shall be treated as if it were a day on which such claimant works.

(2) For the purpose of entitlement to benefit

Sunday Employment

- (a) (i) Where a claimant works and the period for which he works commences on Saturday and extends over midnight into Sunday, or commences on Sunday and extends over midnight into Monday, he shall in respect of that period be treated as having worked, in accordance with the provisions of section three of The Unemployment Insurance Contribution Regulations, 1949, and shall be treated as being unemployed on any day for which a contribution is not payable in accordance with the said section.

Unemployment Insurance Act—continued

- (ii) Where a claimant works on a Sunday and the period for which he works is not described in subparagraph (i) of this paragraph, he shall, in respect of that period, be treated as having worked on the nearest day from Monday to Saturday in that week on which he has not worked.
- (iii) Where a claimant has worked under circumstances described in subparagraphs (i) or (ii) of this paragraph and his employment is not insurable under the Act, he shall be treated as if he were employed in insurable employment.

Days For Which Contribution Required

- (b) No benefit shall be payable to any claimant for any day for which a contribution is required to be recorded pursuant to the provisions of the Act or Regulations made thereunder.

Stevedoring in Designated Ports

- (c) Contributions paid under the provisions of subsection four of Section fourteen of The Unemployment Insurance Contribution Regulations, 1949, in excess of the number of contributions that can be recorded under the provisions of subsection three of Section twenty-one of the said Regulations, shall not be taken into account in computing the claimant's benefit rights.

Deemed Unemployed on Certain Recognized Holidays

Where Working Week Cannot be Completed

- (d) (i) Where in any working week a claimant is prevented by industrial causes beyond his control from working on one or more working days or shifts and for at least the number of hours representing a full working day or shift, he shall be deemed to be unemployed on any day (other than a statutory holiday) which becomes a recognized holiday by reason of his working week, if he duly proves that he has not worked on such recognized holiday nor for the full number of hours of his working week.

General Holiday in Excess of Two Weeks

- (ii) Where an employer has declared a continuous general holiday in excess of two weeks for a claimant's grade, class or shift in the occupation or at the factory, work-shop or other premises at which he is employed, such claimant shall nevertheless be deemed to be unemployed on any day (other than a statutory holiday) recognized as a holiday for him by reason of such general holiday, when such day occurs more than two weeks (or such other period as in the opinion of the Commission the general practice of the employment may require) after the commencement of the general holiday, if he duly proves that he has not worked on any such day.

Benefit Payable for Certain Days notwithstanding Section 29 (1) (a) of the Act

- (e) Where a claimant, upon termination of his employment (which for the purposes of this section includes a lay-off), receives pay in lieu of holidays accrued but not taken during his employment, he shall be entitled to benefit (notwithstanding the provisions of section 29 (1) (a) of The Act) in respect of days subsequent to such

Unemployment Insurance Act—continued

termination, except where a holiday period (of at least one week declared for his grade, class or shift in the occupation or the premises where he earned the pay) commences within three days after such termination, and in such case he shall be disqualified only for a number of days immediately following such termination, equal to the number of days which such pay represents or to the number of days (exclusive of Sundays) in the holiday period, whichever is the lesser.

Unemployed during Farming Off-season

(3) An insured person, whose main employment is the operation of a farm, may prove that he is unemployed in respect of his farming operations on any day during the months of October, November, December, January, February and March (hereinafter called the "farming off-season"), if he fulfills all the other conditions of entitlement to benefit, and produces evidence—

- (a) that, in the farming off-season for which he declares that he is unemployed and for which he is claiming benefit, he either does no work on the farm or the work performed by him thereon is so limited in extent that it does not prevent him from accepting full-time employment, and
- (b) that during the two off-seasons preceding the off-season in which he made such claim for benefit at least 180 contributions in the aggregate were recorded in his respect.

Benefit payable while on Relief

(4) Where a claimant performs work on any day for, and under the direct control of, a municipal or local authority, or organization set up or specially authorized for that purpose by such authority, under a scheme for the relief of needy unemployed persons, as a condition precedent to the receipt of or in return for money, a voucher or an order to purchase food, clothing, shelter, fuel or other necessities of life, he shall be deemed in respect to the performance of such work to be unemployed and available for work on any such day for the purposes of the Act and Regulations made thereunder, if such authority or organization certifies that he performed the work under the said plan and that its performance did not prevent him from accepting other work.

Insurance Officer's Powers

6. The Commission may from time to time determine the procedure to be followed for the consideration and the examination of benefit claims and questions to be considered by an insurance officer and, without limiting the generality of the foregoing, may also determine from time to time the claims and questions which any insurance officer shall examine.

Termination of Five-year and Three-year Periods

7. The five-year and three-year periods specified in section 30 of the Act shall end on the last day of the quarter preceding the commencement of the benefit year for which the computation is made; and, for the purpose of this section, "quarter" means one of four parts of the year of approximately equal length, as the Commission may from time to time determine, the first of which shall commence on the Sunday nearest to April first.

Unemployment Insurance Act—continued

Day of Commencement of Claim Week

8. The day on which a claim week shall commence in respect of a claimant shall be Monday.

Payments in respect of Persons of Unsound Mind or Deceased

9. Where any money is payable out of The Unemployment Insurance Fund to any person of unsound mind, or to any person at the time of his death and there are neither Letters Probate of his will nor Letters of Administration of his estate, the Commission or any officer authorized in that behalf by special or general directions of the Commission may authorize payment of such money or any part thereof to any person who, in its or his opinion, is equitably entitled thereto.

Payments in respect of Persons Residing in U.S.A. Who Report Personally

10. (1) A claimant residing either temporarily or permanently in any of the United States of America, shall not be disqualified for the receipt of benefit by reason only of such residence, if he is available for work in Canada and reports personally at a local office of the Commission as and when an officer of the Commission may direct.

Payments in respect of Persons Residing in States with Reciprocal Agreements

(2) A claimant residing either temporarily or permanently in the Territories of Alaska or Hawaii, the District of Columbia or in any of the United States of America, with which Canada has a reciprocal agreement respecting unemployment insurance, shall not be disqualified for the receipt of benefit by reason only of such residence, if he proves entitlement to benefit under the reciprocal agreement between Canada and the United States of America, which is Schedule "A" of The Unemployment Insurance Coverage Regulations, 1949.

Benefit Paid in Error

11. (1) Any day for which a claimant has been paid benefit to which he was not entitled shall be taken into account for the purpose of determining his benefit rights unless the Commission has recovered the amount of such benefit.

Contributions Paid in Error

(2) No day for which contributions have been paid in error in respect of any claimant shall be taken into account for the purpose of determining his benefit rights unless in any particular case the Commission by resolution otherwise decides.

Ratification of Benefit Wrongly Paid

(3) Sums paid by way of benefit while a claimant was not entitled thereto may be ratified by an authorized officer of the Commission, except where

- (a) there is evidence of wilful misrepresentation or false statements on the part of the claimant; or
- (b) such sums were not paid in accordance with the rate or duration of benefit authorized by an insurance officer, unless in the opinion of an officer of the Commission they were received in good faith by the claimant.

Unemployment Insurance Act—continued*Benefit Considered by the Commission as no longer owing to Fund*

(4) Sums paid by way of benefit while the claimant was not entitled thereto and which are owing to the Fund, may be considered by an authorized officer of the Commission as no longer due and owing to the Fund, where

- (a) the claimant is a discharged bankrupt, or
- (b) the claimant is deceased, or
- (c) the sums have not been repaid to the Fund within three years from the date that they were payable to the Fund, or
- (d) in accordance with instructions issued by the Commission, it is considered that the repayment of the sums would result in undue hardship to the claimant.

SEASONAL REGULATIONS

Seasonal Worker

12. (1) If more than nine of the most recent thirty-six contributions required to be recorded under the Act or Regulations in respect of the employment of an insured person prior to the commencement day of his benefit year are seasonal contributions, such person shall for the purposes of this section be a seasonal worker.

Entitlement to Benefit in Off-seasons

- (2) (a) A seasonal worker shall be entitled to receive benefit for days on which he is unemployed in any off-season applicable in his case, only if he fulfils all the other conditions of entitlement to benefit, and if
 - (i) not less than 360 contributions were recorded pursuant to the Act or Regulations in respect of his employment occurring in the two years ending on the last day of the quarter immediately preceding the commencement day of his benefit year; or
 - (ii) not less than the number of contributions mentioned hereunder were so recorded for employment occurring in the complete quarters contained in any such off-seasons or parts thereof included in the two years ending on the last day of the quarter immediately preceding the commencement day of his benefit year, namely
 - (aa) 40 contributions where the number of quarters contained in such off-seasons or parts thereof is two, or
 - (bb) 80 contributions where the number of quarters contained in such off-seasons or parts thereof is four.
- (b) Where, by reason of subparagraph (i) or (ii) such seasonal worker is not entitled to benefit during any off-season beginning after the commencement day of his benefit year, the period of two years therein mentioned shall thereupon be construed as if it were the period of two years ending on the last day of the quarter immediately preceding the commencement day of such off-season.
- (c) Where such seasonal worker is not entitled to benefit by reason of paragraph (a) or (b), but he has worked in insurable employment during any such off-season for which he is disqualified, and 20 or more contributions are recorded therefor, they shall be deemed to have been recorded in respect of employment within the period mentioned in paragraph (a) or (b) as the case may be in respect only of his entitlement to benefit in periods subsequent to the date on which he proves the payment of such contributions.

Unemployment Insurance Act—continued

Seasonal Industry Applicable

(3) The seasonal industry applicable in the case of any such seasonal worker shall be determined in accordance with the following rules:

One Seasonal Industry

- (a) where his seasonal contributions included in the aforesaid thirty-six contributions were in respect of employment in only one seasonal industry, the seasonal industry applicable shall be that industry;

More Than One Seasonal Industry

- (b) where the said seasonal contributions were in respect of employment in more than one seasonal industry, the seasonal industry applicable shall be the particular seasonal industry in which the greatest number of such seasonal contributions were required; however, in the event that the number of seasonal contributions in two or more seasonal industries is equal, the seasonal industry applicable shall be the one thereof in which the most recent of such seasonal contributions was required.

Off-seasons

(4) The off-seasons for the respective seasonal industries, and the areas in which such off-seasons are applicable, are the following:

Transportation by Water:

All Canada Dec. 16 to Apr. 14

Stevedoring (Inland Ports):

All Canada Dec. 16 to Apr. 14

Stevedoring (Deep-sea Ports): May 16 to Dec. 14

Off-season Applicable

(5) The off-season applicable in the case of any such seasonal worker shall be the off-season for the seasonal industry which has been determined to be applicable in accordance with subsection (3) of this section and, within that industry, for the area which has been determined to be applicable in accordance with subsection (4) of this section; so however that where the said seasonal contributions were in respect of employment in more than one such area, the off-season applicable shall be the off-season for the area where the employment resulting in the greatest number of seasonal contributions took place; and that in the event that the aggregate numbers of such seasonal contributions in respect of employment in two or more areas are equal, the off-season applicable shall be the off-season for the area where the employment resulting in the most recent of such contributions took place.

Definitions

- (6) In this section

Seasonal Contributions

- (a) "seasonal contribution" means a contribution required to be recorded in respect of an insured person's employment in a seasonal industry if such employment is in a seasonal occupation carried on within that industry;

Unemployment Insurance Act—continued*Seasonal Industry*

- (b) "seasonal industry" means and includes the following respective industries, which the Commission hereby declares to be seasonal industries;—

Transportation by Water

- (i) the industry of transportation by water on any of the inland waters of Canada, herein referred to as "transportation by water";

Stevedoring

- (ii) the industry of stevedoring in any of the inland or deep sea ports, herein referred to as "stevedoring";

Seasonal Occupation

- (c) "seasonal occupation" means and includes the occupations mentioned hereunder which are carried on within the respective seasonal industries;

- (i) *In Transportation by Water*:—All occupations carried on by members of the crew of a vessel. The expression "members of the crew" includes the master or officer in charge of the vessel, however designated, and every person subject to his authority serving on board and contributing in any way to the welfare of the vessel, the welfare of the passengers or the crew, or care of the cargo.

- (ii) *In Stevedoring*:—All occupations directly connected with the loading or unloading of a vessel in port, including the occupations of shipliners, coopers, shedmen, coal handlers, gearmen, winchmen and checkers, and any others ordinarily carried on within reach of the ship's tackle or included in an agreement between employers and employees as stevedoring.

Inland Waters of Canada

- (d) "inland waters of Canada" means all the rivers, lakes and other navigable fresh waters within Canada, including the River St. Lawrence as far seaward as a line drawn from Cap DesRosiers through West Point, Anticosti Island extending to the north shore, but not including any other estuaries, harbours or navigable rivers that are open for navigation all year.

Inland Port

- (e) "inland port" means a port on any of the said inland waters of Canada.

Deep Sea Port

- (f) "deep sea port" means the port of Halifax, Nova Scotia, and the port of Saint John, New Brunswick.

Quarter

- (g) "quarter" means one of four parts of the year of approximately equal length as the Commission may from time to time determine, the first of which shall commence on the Sunday nearest to April first.

Unemployment Insurance Act—continued

Vessel Engaged in Transportation Upon Inland Waters

(7) For the purpose of this section a ship or vessel is engaged in the industry of transportation by water upon the inland waters of Canada if its operations or a substantial portion thereof normally consist of voyages upon any of the inland waters of Canada and if it is ordinarily laid up during the winter months by reason of climatic conditions.

Antedating

13. Where a claimant considers that he has good cause for delay in making a claim for benefit, and makes application to have his claim made effective from a date earlier than the date on which he made his claim, such application may be approved if he proves

- (a) that on such date he has in all respects fulfilled the conditions of entitlement to benefit and was in a position to furnish proof thereof; and
- (b) that throughout the whole period between such earlier date and the date he made his claim he had good cause for delay in making such claim and furnishing such proof,

but for the purposes of this section such earlier date shall in no case be more than three months from the date on which he made his claim for benefit.

Period of Service—Merchant Seamen.

14. For the purpose of Section ninety-six of the Act, the "period of service" of a merchant seaman to whom a Special Bonus or a War Service Bonus was payable, shall be the time served subsequent to June 30, 1941, which counted for such bonuses, and any merchant seaman who has received any out-of-work allowances pursuant to "The Merchant Seamen's Out-of-Work Allowances Regulations" (Order in Council P.C. 3396, dated August 9, 1946) and who claims unemployment insurance benefit, shall be treated, in respect of any day for which he has received such out-of-work allowances, as if he had received unemployment insurance benefit under the Act, in a previous benefit year.

COURT OF REFEREES

Constitution of Panel

15. (1) A panel shall be composed of such persons as the Commission may from time to time choose.

(2) Each member of a panel shall be chosen for such period as the Commission may stipulate and his membership may be terminated by the Commission at any time.

Selection of Panel

16. (1) Subject to the provisions of subsection two of this section, a court shall be selected by the Commission and shall consist of a chairman appointed under subsection two of section fifty-two of the Act, one member of an employers' panel and one member of an insured persons' panel.

More Than One Member from Each Panel

(2) The Commission may decide that, in any particular case, there shall be more than one member of an employers' panel and more than one member of an insured persons' panel on a court; provided that the number of members of the court selected from each panel is equal.

Unemployment Insurance Act—continued*Members Chosen in Rotation*

(3) Members of a court other than the chairman shall be selected from the panels so far as is practicable in rotation.

Absence of Members

(4) Any claim or question which is referred to a court may, with the consent of the claimant or the person or association in whose case the question arises, but not otherwise, be proceeded with in the absence of any member or members of the court other than the chairman.

Members of Panel Disqualified

(5) No person shall be a member of a court during the consideration of a case

- (a) in which he is or has been a representative of the claimant, or
- (b) by which he is or may be directly affected, or
- (c) in which he has taken any part either on behalf of an association, or as an employer, or as a witness, or otherwise.

Investigation of Claim Before Decision

17. An insurance officer, before deciding any question arising in connection with a claim for benefit, and the chairman of a court of referees at any time prior to the court's decision, may refer the question, for investigation and report, to any person designated for that purpose.

Appeal to a Court

18. An appeal from a decision of an insurance officer shall be in writing, shall contain a statement of the grounds of the appeal, and shall be filed at the local office from which the claimant received notification of the insurance officer's decision.

Application for Hearing

19. (1) A claimant may apply for a hearing—

- (a) If his claim for benefit is referred to a court, within seven days from receipt of notice of the reference, or
- (b) if he appeals to a court of referees from a decision of an insurance officer, at the time of filing the appeal.

(2) Application for a hearing shall be in writing and shall be filed with the local office at which the appeal is filed.

(3) Upon such application the chairman shall thereupon grant a hearing; if no such application has been made he may nevertheless direct that there shall be a hearing, but in no case shall a person be entitled to be paid for travelling or other allowances for the purpose of attending the hearing unless he is requested by the Chairman of the Court to attend before the Court.

Procedure

(4) The procedure on a hearing shall be determined by the chairman.

Decision of Court

20. (1) A court shall not decide a case until a reasonable opportunity has been given to the claimant to make any representations which

Unemployment Insurance Act—continued

he desires the court to consider in making its decision and, if he fails to do so, he shall be deemed to have had such reasonable opportunity.

(2) If any member of a court dissents from the decision of the court the reasons for his dissent shall be recorded in the report of the proceedings of the court.

(3) As soon as may be after a court has reached a decision the chairman shall file the decision of the court with the insurance officer.

(4) The claimant shall be notified in writing of the decision.

APPEALS TO THE UMPIRE

Leave to Appeal to Umpire

21. (1) An application for leave to appeal to the Umpire under paragraph (c) (ii) of section fifty-seven of the Act shall be made within twenty-one days of the date on which the decision of the court is communicated to the claimant and in such form and manner as the Commission may from time to time provide.

(2) Within fifteen days after receipt of any such application the chairman shall notify the insurance officer in writing of his decision and the insurance officer shall forthwith send written notice of such decision to the claimant.

Appeals to Umpire

22. (1) An appeal to the Umpire from the decision of a court shall be in writing, shall contain a statement of the grounds of appeal, and shall be filed at the local office from which the claimant received notification of the decision of the court of referees.

(2) Any person or association having an immediate interest in the decision may, within ten days after a notice of appeal is filed, file with such local office for submission to the Umpire a statement of the observations and representations he desires the Umpire to consider in deciding the appeal.

Application for Hearing

23. (1) (a) Any person or association having an immediate interest in the decision may apply to the Umpire in writing for a hearing and the Umpire shall thereupon grant a hearing; if no such application has been made he may nevertheless direct that there shall be a hearing; but in no case shall a person be entitled to be paid for travelling or other allowances for the purpose of attending the hearing unless he is requested by the Umpire to attend before him.

(b) An application to the Umpire for a hearing shall be filed at the local office at which the appeal is filed, within ten days after such notice of appeal is filed.

Notice of Hearing

(2) In any case in which a hearing is to be held, such notice in writing of the date, time, and place of the hearing as the Umpire may direct shall be sent to such persons or associations as the Umpire may direct.

Procedure

(3) The procedure on the hearing of an appeal shall be determined by the Umpire.

Unemployment Insurance Act—continued*Decision of Umpire*

24. (1) The decision of the Umpire shall be in writing and the Commission shall send a copy thereof to the claimant and any other person or association having an immediate interest in the decision.

(2) The Commission may publish the decision if and as it deems proper.

PART V**THE NATIONAL EMPLOYMENT SERVICE REGULATIONS, 1949***Short Title*

1. These Regulations may be cited as "The National Employment Service Regulations, 1949."

Definitions

2. In these Regulations, unless the context otherwise requires,

- (a) "insurable employment" means and includes any employment which is insurable employment under the provisions of the Act, and all of the employments specified as excepted employments in Part II of the First Schedule to the Act (and any part of any such excepted employment) to which the Governor in Council has extended or shall extend the provisions of the Act, including employment in lumbering and logging whether or not contributions under the Act are payable in respect thereof.
- (b) "employer" means any person who is offering employment or who has or had any person in employment.
- (c) "employee" means any person to whom employment is offered by an employer or whom an employer has or had in employment.
- (d) "casual employee" means an employee who is employed for a particular job or jobs of a casual nature for a period of less than six days.
- (e) "local employment office" means an employment office established by the Commission under the Act, and in respect of notifications and reports by an employer means the employment office nearest to the establishment in respect of which the notification or report is required.
- (f) "establishment" means any office, plant, factory, works, premises or place, where one or more employees are employed in insurable employment.

Notification of Employer's Requirements

3. If an employer who requires to engage an employee in insurable employment, other than an employee to be engaged pursuant to his seniority rights, does not engage such employee within twenty-four hours after the time when the employment becomes available, he shall forthwith after the said twenty-four hours have elapsed notify the local employment office of such requirement, stating the place where and the occupation for which the employee is required, a description of the duties to be performed, the rate of wages and frequency of payment, the number of hours to be worked each day and each week, the probable duration of the employment, and sufficient information to describe the working conditions of the employment

Unemployment Insurance Act—continued

and any incidental information which the Commission may from time to time require; provided, however, that such notification shall not be required if the employer's office which directly controls hirings at the establishment at which the employment is available, is more than twelve miles distant from the local employment office and he does not seek the employee outside the locality in which his office is situated, but if he seeks the employee outside the said locality the notification shall be required.

Notification of Hirings and Separations

4. (1) Every employer shall periodically furnish to the head office of the Commission, on such form as the Commission may from time to time determine, a report in respect of each establishment in which he had during the whole or any part of the period covered by such report one or more employees in insurable employment, showing for each month in the period covered by the report the number of employees actually in his employ at the beginning of the month, the number of employees whom he has engaged during the month, the number who have separated from his employ during the month, the number in his employ at the end of the month, and any incidental information which the Commission may from time to time require; provided, however, that the employer need not furnish the report for any period in which he had only one establishment and not more than nine employees employed at any one time in the period. The employees herein referred to are not only those in insurable employment but all employees except casual employees.

(2) One such report shall be for the six months' period ending on the last day of February and one shall be for the six months' period ending on the last day of August, in each year, and the employer shall furnish the same semi-annually not later than the fifteenth day of the month which follows immediately after the end of the period covered by the report; provided, however, that the Commission may, upon application, grant an extension of time for furnishing the report.

(3) Where the employer carries on business in more than one establishment he shall furnish a separate report in respect of each establishment; provided, however, that he may include in one report two or more establishments situated in the same city or town; and provided, further, that the Commission may, upon application, authorize an employer to include more than one establishment in one report although the establishments are not situated in the same city or town.

2. Unemployment Insurance Commission Special Orders

UNEMPLOYMENT INSURANCE COMMISSION

Certificate

This is to certify that "The Unemployment Insurance Commission Special Orders, 1949", attached hereto, are the Consolidated Special Orders of The Unemployment Insurance Commission in effect on this day.

Dated at Ottawa, this 22nd day of November, 1949.

THE UNEMPLOYMENT INSURANCE COMMISSION,

Per: E. C. DESORMEAUX,
Secretary.

Unemployment Insurance Act—continued

WHEREAS by the provisions of section 98 (3) of The Unemployment Insurance Act, 1940, the Commission is given power to vary and revoke any Special Order made by the Commission;

AND WHEREAS the Commission is given the power under the provisions of the said Act to make Special Orders with reference to the matters specified in the consolidated Special Orders hereinafter referred to;

IT IS THEREFORE RESOLVED that under and by virtue of the provisions of The Unemployment Insurance Act, 1940, The Unemployment Insurance Commission Special Orders, 1948, made by The Unemployment Insurance Commission on September 16, 1948 and effective October 4, 1948, as amended by the Special Orders of the Commission dated November 20, 1948, March 25, 1949, August 26, 1949, and November 14, 1949, are hereby revoked and the following consolidated Special Orders be and they are hereby made under the title "The Unemployment Insurance Commission Special Orders, 1949".

THE UNEMPLOYMENT INSURANCE COMMISSION SPECIAL ORDERS, 1949**I.**

By this Special Order made and declared by the Commission pursuant to the provisions of paragraph (p) of Part II of the First Schedule to The Unemployment Insurance Act, 1940, the Commission hereby specifies the following employments to apply for the purposes of the said Act, as being of such a nature that they are ordinarily adopted as subsidiary employments only and not as the principal means of livelihood; and for the purposes of this Order the words "previously employed in insurable employment" shall refer to insurable employment within the five years immediately preceding the commencement of the following employments:

1. Seasonal employment

- (a) in connection with a factory for canning or processing food products,
- (b) in fruit packing;

of any person who has not been previously employed in insurable employment, if it is known that the employment of the said person will be for a period not exceeding fifteen weeks in the twelve-month period ending March 31 in any year.

2. (a) Temporary employment in connection with census enumeration of any person who has not been previously employed in insurable employment, if it is known that the employment of the said person will be for a period not exceeding six weeks in the twelve-month period ending March 31 in any year.

- (b) Temporary employment in connection with federal, provincial or municipal elections, of persons engaged in compiling voters' lists or employed as enumerators, poll clerks, returning officers, or deputy returning officers, if the period of their employment does not exceed, in the aggregate, ten days in any period of thirty consecutive days.

3. Temporary employment in connection with circuses, carnivals, exhibitions, fairs or race meetings of any person who has not been previously employed in insurable employment, if it is known that the employment of the said person will be for a period not exceeding fifteen days in the twelve-month period ending March 31 in any year.

Unemployment Insurance Act—continued

4. Employment as a janitor or caretaker where the value of the remuneration of the person employed is less than a daily average of ninety cents.

5. Temporary employment during the period from December 13 to December 31 (both dates inclusive), in any year, of students on vacation from a school, college or university at which such students are in regular day-time attendance during the school term, if such students have not been previously employed in insurable employment.

6. Casual employment in connection with snow or sleet clearance or removal, for a period not exceeding six consecutive days, if the person employed has not been previously employed in insurable employment.

7. Employment by a telephone company or system of any person who has not been previously employed in insurable employment, if the period of employment does not exceed ten days in any month.

8. Employment by a surveyor of any person who has not been previously employed in insurable employment, if the period of employment does not exceed ten days in any month.

9. Employment by a grain elevator company at a grain elevator of any person who has not been previously employed in insurable employment, if the period of employment does not exceed ten days in any month.

10. Employment of any person who is in receipt of fixed annual remuneration not exceeding in value \$500.00 a year, and who is not ordinarily dependent for his livelihood on any insurable employment.

11. Employment by an electric power company or system of any person who has not been previously employed in insurable employment and whose usual occupation is farming or forestry, if the period of employment does not exceed ten days in any month.

12. Employment as a charwoman where the employment is for not more than four hours per day and is carried on outside of the ordinary business hours of the employer.

13. Employment of a full-time enrolled student of a day school, college or university, during any week from Sunday to Saturday in which his earnings from such employment do not exceed \$5.40.

14. Employment of any person in an occupation which he could ordinarily follow in addition to his usual employment and outside the ordinary working hours of that employment, and whether or not his usual employment has terminated, if the remuneration or profit received from such occupation does not exceed one dollar and fifty cents in respect of any day, or where the occupation is followed for a period longer than a day, the remuneration or profit does not exceed a daily average of one dollar and fifty cents in any week.

15. Employment in stevedoring at ports in the Magdalen Islands (Province of Quebec) and in the Provinces of New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland, other than the Ports of Saint John and Dalhousie in New Brunswick, Halifax and Sydney in Nova Scotia, and St. John's, Botwood, Port aux Basques and Corner Brook in Newfoundland, of any person whose usual occupation is not insurable employment,

Unemployment Insurance Act—continued

unless he declares to his employer, at the time of hiring, that in the twelve-month period immediately preceding the commencement of such employment in stevedoring he has been employed in insurable employment in excess of forty-five days in the aggregate.

II.

By this Special Order, The Unemployment Insurance Commission, pursuant to the provisions of paragraph (b) of Part I of the First Schedule to The Unemployment Insurance Act, 1940, hereby excludes the following employments from the provisions of sub-paragraph (iii) of paragraph (b) of Part I of the First Schedule to the Act; and for the purposes of this Special Order, the expression "previously employed in insurable employment" shall refer to insurable employment within the five years immediately preceding the commencement of the following employments:

- (a) Employment by a rural municipal authority of any person who has not been previously employed in insurable employment and who is ordinarily engaged in agriculture, or other non-insurable employment, when it is known that the employment of the said person will be for a period not exceeding eight weeks in the twelve-month period ending March 31 in any year.
- (b) Employment by any municipal authority
 - (i) when the remuneration is solely by credit on relief or taxes; or
 - (ii) when the work done for the municipal authority is done as a condition precedent to the grant of cash or voucher relief; or
 - (iii) when the services rendered to the municipal authority are rendered pursuant to a duty imposed by statute of the province;

other than employment of persons on public works or undertakings arranged for the purpose of removing persons from relief rolls, when the rates of remuneration and conditions of employment on such public works or undertakings are similar to the rates of remuneration and conditions of employment on regular employment by such municipal authority.

III.

By this Special Order made by the Commission pursuant to the provisions of paragraph (l) of Part II of the First Schedule to The Unemployment Insurance Act, 1940, as amended in 1948, the Unemployment Insurance Commission hereby specifies the following employments in the public service of Canada or a province or by a municipal authority (other than employments in connection with a public utility), as permanent employments for the purposes of the said Act and regulations made thereunder:

- (a) Employment of a person by whom or for whose benefit contributions are made to an established superannuation, pension or retirement fund, or who has rights therein, but not of a person employed in the public service of Canada and to whom Part VI of the Civil Service Superannuation Act applies.

Unemployment Insurance Act—concluded

- (b) Employment of a person who has been employed by his employer for at least three consecutive years in a position or positions requiring full-time service for not less than eight months in each year, in which service he is expected to continue for an indeterminate period; and for the purposes of this Special Order each board, commission, agency or department of the public service of Canada, a province or a municipal authority, shall be deemed to be an individual employer.

IV.

By this Special Order made by the Commission pursuant to the provisions of subsection (3) of Section 5 of The Unemployment Insurance Contribution Regulations, 1949, the Unemployment Insurance Commission hereby

- (a) designates the following ports, as ports where contributions shall be payable on the basis of divisors:

Halifax	Saint John
Quebec	Sorel
Three Rivers	Montreal

Vancouver, New Westminster, and other coast ports for which records are maintained in Vancouver;

Victoria, Port Alberni, and other ports on Vancouver Island for which records are maintained at Victoria.

- (b) determines the divisors as follows:

Where the basic wage rate for stevedoring is

- (i) less than 85c per hour the divisor shall be \$5.00 per day,
- (ii) 85c to \$1.10 per hour the divisor shall be \$7.00 per day,
- (iii) more than \$1.10 per hour the divisor shall be \$9.00 per day.

V.

By this Special Order made by the Commission pursuant to the provisions of subsection (2) of Section 5 of The Unemployment Insurance Contribution Regulations, 1949, The Unemployment Insurance Commission hereby determines that the employment of railway employees who are paid on a mileage basis comes within the provisions of subsection (2) of Section 5 of the said Regulations and hereby determines the divisors as follows:

By dividing the number of dollars earned by any such employed person in a month

- (i) for engineers, motormen and conductors, by 15;
- (ii) for firemen, helpers and trainmen, by 9;
- (iii) for employees performing services in the same month as both engineers or motormen and firemen or helpers, or conductors and trainmen, by 12.

UNFAIR COMPETITION ACT, 1932. (1932, c. 38)**The Trade Mark Registration Regulations**

P.C. 3219

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 20th day of July, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Secretary of State and pursuant to the provisions of section 60 of The Unfair Competition Act, 1932, 22-23 George V, Chapter 38, is pleased to order as follows:

1. The Regulations for carrying into effect the objects of The Unfair Competition Act, 1932, established by Order in Council P.C. 1890 of 26th August, 1932, as amended, are hereby revoked with effect from the first day of September, 1948; and
2. The annexed regulations entitled "The Trade Mark Registration Regulations" are hereby made and established with effect from the first day of September, 1948, in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE TRADE MARK REGISTRATION REGULATIONS

1. The owner of a Trade Mark may prosecute his own application for registration of such Mark.
2. An application for registration of a Trade Mark shall be signed by the applicant or by a duly authorized agent.
3. Any authorized officer of a Company may sign for the Company. The title of the signing officer and the seal of the Company shall be affixed.
4. All communications to the Trade Marks Office shall be addressed to The Registrar of Trade Marks, Secretary of State Department, Ottawa, Canada.
5. A separate letter must, in every case, be written in relation to each application.
6. All business before the Trade Marks Office shall be in writing and in considering any pending application the Registrar shall refer only to the Act and to the file of the application in question.
7. Letters relating to pending applications for the registration of Trade Marks must give the name of the applicant, the serial number of the application and the date of filing.

Unfair Competition Act—Continued

8. (1) The files respecting registered Trade Marks or pending applications for registration and the Registers and indexes shall be open to inspection by the public during business hours, without charge, under the supervision of the officials in control thereof.

(2) The Registrar shall not furnish information which requires a search of the general records of the Trade Marks Office, nor will he express an opinion on the registrability of a mark prior to the receipt of a formal application. The Registrar shall decline to answer questions involving the interpretation of the Unfair Competition Act, 1932.

9. An application for the registration of a Trade Mark, unaccompanied by the statutory fee, will receive a serial number, but will not be given a filing date until such fee is received. Remittances should be made payable to the Receiver General of Canada.

10. The five representations which form part of a Design Mark application should not exceed $3\frac{1}{2}$ inches in height by $4\frac{1}{2}$ inches in width, and should be suitable for pasting on an index card. In addition, one copy of the Mark as actually used, should, when available, be furnished.

11. The following persons are permitted to practise before the Trade Marks Office:

- (a) Any barrister, solicitor or advocate on the roll of barristers, solicitors or advocates under the Laws of any of the Provinces of Canada.
- (b) Notaries entitled to practise their profession under the Laws of the Province of Quebec.
- (c) Any member of the Patent Institute of Canada.
- (d) Any barrister, solicitor or attorney resident in any part of the British Commonwealth of Nations, who files proof to the satisfaction of the Registrar that he is registered and in good standing before the Trade Marks Office of his place of residence and possesses the qualifications required to practise before the said Office.

No other person shall be permitted to act as attorney or agent to prosecute an application before the Trade Marks Office. Attorneys or agents residing out of Canada shall appoint an associate, resident in Canada, qualified under paragraphs (a), (b) or (c) of this section.

12. For gross misconduct or any other cause which he may deem sufficient, the Registrar may refuse to recognize any person as Agent or Attorney to prosecute an application or other proceeding before the Trade Marks Office, either generally or in any particular case.

13. An assignment should be submitted in duplicate originals or one original and a notarially certified copy. One copy shall be retained by the Trade Marks Office and the other copy returned with certificate of recording thereon.

14. As regards proceedings not specially provided for in the following forms, any form being in accord with the letter and spirit of the law will be accepted.

Unfair Competition Act—continued

FORM NO. 1

APPLICATION BY AN OWNER RESIDENT IN CANADA

To THE REGISTRAR OF TRADE MARKS

Ottawa, Ontario.

1. I (or we), the undersigned,
 whose principal place of business is situate at
 (Street City Province)
 hereby makes application, pursuant to the provisions of The Unfair Competition Act, 1932, for the registration of the Trade Marks hereinafter described.

2. The Mark, of which registration is desired, is a Word Mark consisting of the following letters in the following grouping

3. The applicant, (and its predecessor, if any—give name), has (have) used the mark since on wares ordinarily and commercially described as to indicate that the wares are sold by the applicant.

4. Such use has been in the following countries:.....

5. In addition to the wares of the kind described above, the applicant is commercially concerned with wares ordinarily and commercially described as:.....

6. The applicant considers that, having regard to the provisions of the statute aforesaid, it was and is entitled to adopt and use the said Word Mark in Canada in association with the wares upon which it has been used, as recited above.

7. SIGNED atthis
 day of, 19....

Seal (if Company)

or

Witness (if individual)

IF THE APPLICATION IS FOR A DESIGN MARK, substitute the following for the second paragraph:

The Mark, of which registration is desired, is a DESIGN MARK, of which five accurate and complete representations are furnished herewith, its principal features requiring to be indexed being, in the applicant's opinion, as follows:.....

Unfair Competition Act—continued

FORM No. 2

APPLICATION BY AN OWNER RESIDENT IN A
COUNTRY OTHER THAN CANADA

TO THE REGISTRAR OF TRADE MARKS,

Ottawa, Ontario.

1. I (or we), the undersigned,.....
whose principal place of business is situate at.....
(Street.....City.....State or Pro-
vince).....hereby makes application, pur-
suant to the provisions of The Unfair Competition Act, 1932, for the
registration of the Trade Mark hereinafter described.

2. The Mark, of which registration is desired, is a Word Mark con-
sisting of the following letters, in the following grouping:.....
.....

3. The applicant (and its predecessor, if any—give name), has (have)
used the mark since.....on wares ordinarily and
commercially described as.....
to indicate that the wares are sold by the applicant.

4. Such use has been in the following countries.....
.....

5. In addition to the wares of the kind described above, the appli-
cant is commercially concerned with wares ordinarily and commercially
described as.....

6. The applicant considers that, having regard to the provisions of the
statute aforesaid, he was and is entitled to adopt and use the said Word
Mark in Canada in association with the wares upon which he has used it
as recited above.

7. The applicant has no place of business in Canada, and appoints....
..... (person, firm or corporation).....
whose address is.....as the..... (per-
son, firm or corporation).....to whom any notice in
respect of the registration may be sent, and upon whom service of any
proceedings in respect of the registration may be made with the same
effect as if it had been served upon the applicant.

8. SIGNED at.....this.....
day of.....19....

Seal (if Company)

or

Witness (if individual)

IF THE APPLICATION IS FOR A DESIGN MARK, substitute the
following for the second paragraph.

The mark, of which registration is desired, is a DESIGN MARK, of
which five accurate and complete representations are furnished herewith,
its principal features requiring to be indexed being, in the applicant's
opinion, as follows:.....
.....

Unfair Competition Act—continued

FORM No. 3

APPLICATION FOR AMENDMENT

To THE REGISTRAR OF TRADE MARKS,
Ottawa, Ontario.

1. I (or we), the undersigned,.....
whose principal place of business is situate at.....
(Street.....City.....Province).....
hereby applies under Section 42 of The Unfair Competition Act, 1932, for
the amendment of the statement relating to wares appearing in the record
of Trade Mark registration No.....to include the additional
wares hereinafter described.

2. The applicant (and its predecessor, if any—give name) has (have)
used the said Trade Mark since.....19....on wares ordin-
arily and commercially described as.....
.....to indicate that the wares are sold by
the applicant.

3. Such use by the applicant has been principally in the following
countries:.....

4. In addition to the wares of the kind described above, the applicant
is commercially concerned with wares ordinarily and commercially
described as.....

5. The applicant considers that, having regard to the provisions of
the Statute aforesaid, it was and is entitled to adopt and use the Mark in
Canada in association with the wares upon which it has been used, as
recited above.

6. SIGNED atthis.....
day of.....,19....

Seal (if Company)
or
Witness (if individual)

Unfair Competition Act—Concluded

FORM No. 4

APPLICATION FOR REGISTRATION UNDER SECTION 12

To THE REGISTRAR OF TRADE MARKS,
Ottawa, Ontario.

1. I (or we), the undersigned,
whose principal place of business is situate at.....
(Street..... City..... Province).....
hereby makes application, pursuant to the provisions of The Unfair Competition Act, 1932, for the registration of the Trade Mark hereinafter described.

2. The Trade Mark, of which registration is desired, is a WORD MARK consisting of the following letters in the following grouping:
.....

3. The applicant has licensed the said WORD MARK since.....
.....on wares ordinarily and commercially described as.....

4. Such licensing (by the applicant) has been in the following countries:.....

5. The applicant is not engaged in the manufacture, sale, lease or hire of the same or similar wares in association with which the WORD MARK is used.

6. The Trade Mark is used by the members of the applicant's association, and its use is intended to indicate that such wares have attained the following standards:.....
as defined by.....

7. The applicant considers that, having regard to the provisions of the statute aforesaid, it was and is entitled to adopt and license the said WORD MARK in Canada in association with the wares upon which it has been used, as recited above.

8. Signed at..... this.....
day of....., 19....

Seal (if Company)

or

Witness (if individual)

.....

UNITED NATIONS ACT, 1947. (1947, c. 46)

No statutory orders or regulations have been made under this statute.

UNITED NATIONS RELIEF AND REHABILITATION ADMINISTRATION ACT, 1944. (1944-45, c. 12)

No statutory orders or regulations have been made under this statute.

VEGETABLES

See FRUIT, VEGETABLES AND HONEY ACT; MEAT AND CANNED FOODS ACT
(Processed vegetables).

**VEHICULAR TRAFFIC ON DOMINION PROPERTY ACT.
(1930, c. 47)**

See also FEDERAL DISTRICT COMMISSION ACT, 1927.

1. *Vehicular traffic on Dominion property (Ottawa).*
2. *Vehicular traffic—Chalk River and Deep River.*

**1. Regulations for the Control of Vehicular Traffic on Dominion
Property**

P.C. 5980

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 24th day of November, 1949.

PRESENT:**HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL**

His Excellency the Governor General in Council, on the recommendation of the Minister of Public Works and under the authority of chapter 47 of the Statutes of Canada, 1930,—An Act to provide for the regulation of Vehicular Traffic on Dominion property—is pleased to order as follows:

1. The Regulations for the control of traffic on Dominion property, established by Order in Council P.C. 5381 of 31st December, 1947, are hereby revoked; and
2. The annexed "Regulations for the Control of Traffic on Dominion Property" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS FOR THE CONTROL OF VEHICULAR TRAFFIC ON DOMINION PROPERTY**APPLICATION**

1. These regulations apply to all parks, roads, avenues and driveways, situated on the property of His Majesty, in the City of Ottawa including the Central Experimental Farm, except those properties that are under the control of the Federal District Commission.

Vehicular Traffic on Dominion Property Act—continued

INTERPRETATION

2. In these regulations, unless the context otherwise implies:
 - (a) "intersection" means that portion of any road which lies immediately in front of, and adjacent to, the terminus of, or which is common to, or intersected by, another road;
 - (b) "park or parking" means to allow a vehicle, without a qualified driver, to remain stationary upon a road for a longer period of time than is necessary to take on, or to discharge, passengers or merchandise therefrom;
 - (c) "road" includes any driveway, roadway, lane or court-yard;
 - (d) "vehicle" means any wagon, buggy, cart, sleigh, bicycle, motor truck, motorcycle, or other conveyance, supported by either wheels or runners.

CONTROL OF TRAFFIC

3. (1) The driver of any vehicle shall bring the said vehicle to a full stop upon being ordered to do so by a member of the Royal Canadian Mounted Police; and shall obey all directions issued by a member of the Royal Canadian Mounted Police, as to the route to be followed, or the control of traffic generally, including the parking of vehicles.

(2) The driver of any vehicle shall bring such vehicle to a full stop on approaching an intersection if the road on which he is travelling is marked with a "Stop Sign" at the said intersection.

(3) The driver of any vehicle shall comply with the direction of any mechanical device installed for the control of traffic.

(4) No driver of any vehicle shall drive the said vehicle over any roadway, the use of which for general traffic is prohibited by signs or other device.

TRAFFIC ON PARLIAMENT HILL

4. (1) No person driving a vehicle shall enter Parliament Hill by any entrance other than the East Gate (Elgin Street) or the West Gate (Bank Street).

- (2) No person driving a vehicle on Parliament Hill shall drive
 - (a) in a westerly direction along the portion of the roadway parallel to Wellington Street that lies between the Centre Gate and the roadway on the east side of the West Block;
 - (b) southerly on the roadways on either side of the East Block; or
 - (c) northerly on the roadways on either side of the West Block.

(3) No person driving a vehicle shall leave Parliament Hill by any exit other than the Centre Gate or the West Gate (Bank Street).

RATE OF SPEED

5. (1) Vehicles travelling on any road to which these regulations apply shall not exceed a speed of twenty miles an hour.

(2) No person, in charge of any vehicle, shall drive, or ride, such vehicle at a rate of speed which is excessive or dangerous, having regard to the conditions then prevailing, and such person shall keep such vehicle in such control approaching a road intersection, or a crossing for pedestrians, as will enable him to prevent a collision with, or damage to, all other persons and vehicles upon the road.

Vehicular Traffic on Dominion Property Act—continued**PARKING**

6. (1) No person shall park any vehicle, upon any road situated on the property of His Majesty, unless permission to do so is designated by signs erected or marked on the roadway.

(2) No person shall park a vehicle upon any sidewalk, lawn, or cultivated piece of ground, situated on the property of His Majesty.

(3) On any road, where parking is permitted, and such permission is designated by signs erected or marked on the road, such parking is restricted to a single line of vehicles at the curb, or edge of the road.

(4) Parking of vehicles on both sides of the road in any given area, and parking outside of the areas designated for parking purposes, or at a point so distant from the curb or edge of the road as to prevent traffic from passing along such road, is prohibited.

(5) On any roadway, where parking areas are marked as reserved for designated officials, no person, other than the officials so designated shall park in the said areas.

(6) No person shall park any vehicle on any properties to which these regulations apply for a period of time longer than twelve hours, except by permission of the Officer Commanding "A" Division, R.C.M.P.

(7) The provisions of subsections (1) and (6) may be suspended by the Minister of Public Works, in so far as they apply to Parliament Hill on the occasion of the Opening or Closing of Parliament, and on such other occasions as he may designate.

PENALTY

7. Any person who violates any of the provisions of these regulations shall be guilty of an offence and shall be liable, upon summary conviction, to a penalty of not less than one dollar and not more than fifty dollars, or to imprisonment for a term not exceeding two months.

8. (1) Where a vehicle is operated or parked in contravention of these regulations the owner of the vehicle is liable to the penalties prescribed by these regulations for such contravention, unless at the time of such contravention the vehicle was not operated or parked, as the case may be, by the owner or by any other person with the owner's consent, express or implied.

(2) Nothing in this section relieves a person who operates or parks a vehicle in contravention of these regulations from the penalty prescribed for such contravention.

2. Regulations for the Control of Vehicular Traffic—Chalk River and Deep River

P.C. 5723

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 22nd day of November, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, under and by virtue of the powers conferred by Chapter 47 of the Statutes of Canada, 1930, An Act to provide for the regulation of Vehicular Traffic on Dominion property, is pleased to order as follows:

Vehicular Traffic on Dominion Property Act—continued

1. The Regulations for the control of vehicular traffic on Dominion property at Chalk River and at Deep River, Ontario, established by Order in Council P.C. 2885 of 26th June 1948, as amended, are hereby revoked; and

2. The annexed "Regulations for the Control of Vehicular Traffic on Dominion property at Chalk River and at Deep River" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS FOR THE CONTROL OF VEHICULAR TRAFFIC
ON DOMINION PROPERTY AT CHALK RIVER AND AT
DEEP RIVER

APPLICATION

1. These regulations apply to all parks, roads, avenues and driveways situated on the property of His Majesty in and about the Atomic Energy Plant at Chalk River, and in and about Deep River, both in the County of Renfrew in the Province of Ontario.

INTERPRETATION

2. In these regulations, unless the context otherwise implies:

- (a) "intersection" means that portion of any road which lies immediately in front of, and adjacent to, the terminus of, or which is common to, or intersected by, another road;
- (b) "park or parking" means to allow a vehicle, without a qualified driver, to remain stationary upon a road for a longer period of time than is necessary to take on, or to discharge, passengers or merchandise therefrom;
- (c) "road" includes any driveway, roadway, lane or courtyard;
- (d) "vehicle" means any wagon, buggy, cart, sleigh, bicycle, motor car, motor truck, motorcycle, or other conveyance, supported by either wheels or runners.

CONTROL OF TRAFFIC

3. (1) The driver of any vehicle shall bring such vehicle to a full stop upon being ordered to do so by a member of the Royal Canadian Mounted Police, or by any person authorized by the National Research Council to enforce these regulations; and shall obey all directions issued by a member of the Royal Canadian Mounted Police, or by any person authorized as aforesaid, as to the route to be followed, or the control of traffic generally, including the parking of vehicles.

(2) The driver of any vehicle shall bring such vehicle to a full stop on approaching an intersection if the road on which he is travelling is marked with a "Stop Sign" at the said intersection.

(3) The driver of any vehicle shall comply with the direction of any mechanical device installed for the control of traffic.

(4) No driver of any vehicle shall drive such vehicle over any roadway, the use of which for general traffic is prohibited by signs or other device.

Vehicular Traffic on Dominion Property Act—concluded

RATE OF SPEED

4. (1) Vehicles travelling on the road at Chalk River between the outer plant gate and the plant proper shall not exceed a speed of thirty-five (35) miles an hour, and vehicles travelling on any other road to which these regulations apply shall not exceed a speed of twenty (20) miles an hour.

(2) No person, in charge of any vehicle, shall drive, or ride, such vehicle at a rate of speed which is excessive, or dangerous, having regard to the conditions then prevailing, and such person shall keep such vehicle in such control approaching a road intersection, or a crossing for pedestrians, as will enable him to prevent a collision with, or damage to, all other persons and vehicles upon the road.

PARKING

5. (1) No person shall park any vehicle, upon any road situated on the property of His Majesty, unless permission to do so is designated by signs erected or marked on the roadway.

(2) No person shall park a vehicle upon any sidewalk, lawn, or cultivated piece of ground, situated on the property of His Majesty.

(3) On any road, where parking is permitted, and such permission is designated by signs erected or marked on the road, such parking is restricted to a single line of vehicles at the curb, or edge of the road.

(4) Parking of vehicles on both sides of the road in any given area, and parking outside of the areas designated for parking purposes, or at a point so distant from the curb or edge of the road as to prevent traffic from passing along such road is prohibited.

(5) On any roadway, where parking areas are marked as reserved for designated officials, no person, other than the officials so designated, shall park in the said areas.

(6) No person shall park any vehicle on any properties, to which these regulations apply, for a period of time longer than twelve (12) hours, except by permission of the officer in charge of Administration at the Chalk River Project.

PENALTY

6. Any person who violates any of the provisions of these regulations shall be guilty of an offence and shall be liable, upon summary conviction, to a penalty of not less than one dollar and not more than fifty dollars, or to imprisonment for a term not exceeding two months.

7. (1) Where a vehicle is operated or parked in contravention of these regulations, the owner of the vehicle is liable to the penalties prescribed by these regulations for such contravention, unless at the time of such contravention, the vehicle was not operated or parked, as the case may be, by the owner or by any other person with the owner's consent, express or implied.

(2) Nothing in this section relieves a person who operates or parks a vehicle in contravention of these regulations from the penalty prescribed for such contravention.

VETERANS

See also ARMY BENEVOLENT FUND ACT; CANTEEN FUNDS (CANADA) ACT; DEPARTMENT OF NATIONAL DEFENCE ACT (VETERANS ESTATES REGULATIONS); DOMINION ELECTIONS ACT; RETURNED SOLDIERS' INSURANCE ACT; SOLDIER SETTLEMENT ACT.

ALLIED VETERANS BENEFITS ACT. (1946, c. 36)

No statutory orders or regulations have been made under this statute.

ASSISTANCE FUND (W.V.A.). (APPROPRIATION ACT, No. 1, 1949)

Assistance Fund (W.V.A.) Regulations

P.C. 172/1912

Certified to be a true copy of a Minute of a Meeting of the Treasury Board, approved by His Excellency the Governor General in Council, on the 15th April, 1949.

The Board recommend that under authority of Vote 537 of The Appropriation Act, No. 1, 1949, the following regulations be established, effective April 1, 1949:

1. The moneys provided by Parliament for the purpose described in these regulations shall be known as the Assistance Fund (W.V.A.).

2. There shall be established at Head Office of the Department of Veterans Affairs an Assistance Fund (W.V.A.) Committee composed of the following persons:

The Deputy Minister of Veterans Affairs who shall be Chairman, or in his absence the Acting Deputy Minister;

The Chairman of the War Veterans' Allowance Board, or in his absence the member of the Board acting in his stead;

The Director General of Veterans' Welfare Services, or in his absence the Acting Director General of Veterans' Welfare Services.

3. The duties of the Assistance Fund (W.V.A.) Committee shall be

- (a) to co-ordinate the work of the District Assistance Fund (W.V.A.) Committees (as defined hereafter);
- (b) to allot money from the Assistance Fund (W.V.A.) to the District Committees on an equitable basis;
- (c) to issue instructions governing the administration of the Assistance Fund (W.V.A.) for the guidance of District Committees;
- (d) to report to the Minister on the operation of the District Assistance Fund (W.V.A.) Committees;
- (e) to recommend to the Minister changes in, or additions to, the regulations governing the operation of the Assistance Fund (W.V.A.) where it seems advisable.

4. (a) There shall be established, in each District of the Department of Veterans Affairs, District Assistance Fund (W.V.A.) Committees who will work in the closest collaboration with Welfare, Community and Veterans' Organizations;

Assistance Fund (W.V.A.) Act—concluded

- (b) A Committee shall be composed of not less than three nor more than five members, three of whom shall constitute a quorum;
- (c) The Chairman shall be the District Administrator, provided always that he may appoint the District Superintendent of Veterans' Welfare Services or the Acting District Superintendent of Veterans' Welfare Services, or in sub-districts the Assistant District Administrator, to be Chairman, and the remaining members shall occupy positions not below the classification of a Head Clerk and shall be appointed by the District Administrator.

5. The Secretary of a District Assistance Fund (W.V.A.) Committee shall keep such record of meetings as the Assistance Fund (W.V.A.) Committee shall direct.

6. Any decision of a District Assistance Fund (W.V.A.) Committee shall be signed by three members thereof.

7. A recipient under The War Veterans' Allowance Act, 1946, as defined therein, of benefits in the amount of \$40.41 a month if awarded at the rate for a single person, or in the amount of \$70.83 a month if awarded otherwise, may be granted, on application, assistance by the District Assistance Fund (W.V.A.) Committee provided that, in the opinion of this Committee, such recipient is suffering financial distress.

8. No recipient may receive assistance in any twelve consecutive months in an amount greater than the difference between his total income (including War Veterans' Allowance and income from other sources) and the maximum amount of income allowed under The War Veterans' Allowance Act, 1946, and, in no case, shall the amount exceed \$120.00 for a recipient of War Veterans' Allowance in the amount of \$40.41 a month if awarded at the rate for a single person or \$180.00 for a recipient of War Veterans' Allowance in the amount of \$70.83 a month if awarded otherwise.

9. Assistance may be provided in the form of cash grants to meet emergency situations or, at the discretion of the District Assistance Fund (W.V.A.) Committee, in the form of a monthly grant to meet a special need as long as such need continues.

10. Where in any case a District Assistance Fund (W.V.A.) Committee is of the opinion that the recipient would be likely to apply the amount of any assistance otherwise than to the best advantage, it may direct the payments to be made to and administered by such person or persons as it shall select.

11. A District Assistance Fund (W.V.A.) Committee will only authorize assistance after they have been assured that all other avenues of entitlement have been explored.

12. Any assistance granted by the District Assistance Fund (W.V.A.) Committees under the terms hereof shall be chargeable to moneys provided by Parliament for the purpose.

N. A. ROBERTSON,
Clerk of the Privy Council.

DEPARTMENT OF VETERANS AFFAIRS ACT. (1944-45, c. 19)

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|---|--------------------------------|
| 1. Pensioners, industrial accidents. | 2. Last Post Fund. |
| 3. Treatment of blind veterans. | 4. Educational services. |
| 5. Guardianship of veterans. | 6. Medical treatment and care. |
| 7. Merchant seamen vocational training. | |

1. Regulations governing payment of the cost of compensation in respect of certain pensioners who suffer industrial accident

P.C. 6221

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 8th day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the Department of Veterans Affairs Act, is pleased to order as follows:

1. The Regulations governing the payment of the cost of compensation in respect of certain pensioners who suffer industrial accident, approved and established by Order in Council P.C. 74 of 13th January, 1948, are hereby revoked, effective October 1, 1949; and

2. The annexed "Regulations governing the payment of the cost of compensation in respect of certain pensioners who suffer industrial accident", made by the Minister of Veterans Affairs pursuant to section six of The Department of Veterans Affairs Act, are hereby approved and established, effective October 1, 1949, in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council

REGULATIONS GOVERNING THE PAYMENT OF THE COST OF
COMPENSATION IN RESPECT OF CERTAIN PENSIONERS
WHO SUFFER INDUSTRIAL ACCIDENT

1. In these Regulations, unless the context otherwise requires:
- (a) "accident" means industrial accident and includes industrial disease;
 - (b) "Board" means a Workmen's Compensation Board or Commission operating in one of the Provinces of Canada under legislation enacted by such Province;
 - (c) "compensation" means all moneys to which a pensioner is, or in the case of his death his dependents are, entitled in respect of accident under or by virtue of any Workmen's Compensation Act or otherwise by law;
 - (d) "Departmental medical authority" means a full-time medical or dental officer of the Department acting with the concurrence of the Director General of Treatment Services;
 - (e) "Department" means the Department of Veterans Affairs;

Department of Veterans Affairs Act—continued

- (f) "employer" means a pensioner's employer who is individually liable under any Workmen's Compensation Act or otherwise by law in respect of an accident, and who does not carry insurance with an insurance company covering such liability;
- (g) "full cost of compensation" includes compensation, burial expenses, the cost of medical aid and all other moneys payable, in respect of an accident suffered by a pensioner, under or by virtue of any Workmen's Compensation Act or otherwise by law;
- (h) "pensioner" means a former member of His Majesty's forces who is resident in Canada and is in receipt of a disability pension of not less than 25 per cent payable by or through the Canadian Pension Commission or the Canadian Office of the British Ministry of Pensions, in respect of service in World War I, and/or in World War II; provided that when such former member served only during World War II in any of His Majesty's forces other than the naval, military or air forces of Canada he shall have been domiciled in Canada or Newfoundland at the time of his enlistment;
- (i) "World War I" means the war which commenced on the 4th August, 1914, and terminated on the 31st August, 1921;
- (j) "World War II" means the war which commenced in September, 1939.

2. The Department may reimburse a Board or employer in whole or in part the full cost of compensation paid by the Board or employer, as the case may be, with respect to an accident suffered by a pensioner, upon receiving a certificate from the Board setting forth the payments made by it, or, in the case of an employer, upon receiving a certificate from the appropriate Board, or, if no Board has jurisdiction, from the employer, showing the amount of compensation and such other evidence as the Department may require; provided that

- (a) The Department shall not reimburse, in any month, temporary or permanent compensation payable by instalments in respect of disability in an amount which, when added to the pension and/or Departmental hospital allowance which has been paid in that month, would exceed the amount of pension payable if the pensioner were in receipt of a disability pension assessed at 100 per cent under the Pension Act;
- (b) The Department shall not reimburse, in any month, compensation payable by instalments in respect of death in an amount which, when added to any pension payable in respect of death, would exceed the maximum amount of pension payable under the Pension Act with respect to the pensioner;
- (c) Where reimbursement has been determined upon by the Department, the Department shall make the same by continuing remittances or lump sum or sums according to the manner in which compensation has been paid by the Board or employer, and in no case shall the Department pay to a Board or employer a lump sum unless the Board or employer has paid compensation in like manner;

Department of Veterans Affairs Act—continued

- (d) Where compensation is paid by lump sum or partially by lump sum and partially by instalments, reimbursement by the Department with respect to both the lump sum and any continuing instalments shall be in the proportion provided by paragraph (a) hereof as if the compensation were paid wholly in instalments;
- (e) If a claim for damages is or has been made against an employer in respect of an accident suffered by a pensioner while employed in an industry not within the jurisdiction of a Board, and liability therefor has been admitted by the employer, or, if damages have been awarded against such employer by any court or competent tribunal other than a Board, the Department may submit all the evidence available and a statement of the facts (including those, if any, found by the court or other tribunal, if the damages shall have been adjudged by any such court or tribunal) to the Board for the Province in which the accident occurred, or, if the accident did not occur in a Province in which there is a Board, the same may be submitted to the Board of any adjoining Province, or, if the accident occurred outside a Province, the same may be submitted to any Board, for the purpose of ascertaining the amount which would be payable under the Workmen's Compensation Act of the Province for which such Board was appointed, if the industry were within the jurisdiction of such Board, and the Department may, except as otherwise provided in these regulations, pay the amount as agreed upon as aforesaid or awarded by the court or other tribunal, as the case may be, against the employer if the same be equal to or less than the amount as determined by such Board, and if it be greater the Department may pay the amount as determined by such Board;
- (f) Reimbursement shall not be made in respect of an accident compensable by virtue of The Government Employees Compensation Act, 1947, or any other Act or Order in Council whereby the cost of compensation is borne by His Majesty in the right of Canada.

3. The Department shall not refund to any insurance company any compensation payable by it in respect of an accident suffered by a pensioner whose employer has paid to such insurance company a premium whereby such employer has been insured against liability by such company, but the Department may, upon request of the employer and upon his submitting a certificate from the insurance company, refund to him the amount of premium paid by him in respect of such pensioner to the company for the year in which the accident occurred.

4. The following rules shall govern the relations between the Department, on the one hand, and the Board or employer, as the case may be, on the other hand, in connection with the submission of claims for compensation to the Department and the treatment of pensioners:—

- (a) As a pre-requisite to any claim for reimbursement of compensation receiving the consideration of the Department, notice of the accident from which the claim arises shall be sent to the Department by the Board immediately after the Board itself has received notice of accident from the pensioner or his employer, and by

Department of Veterans Affairs Act—continued

the employer, immediately after the accident has been brought to his attention. Notice of such accident shall contain the following particulars for the information of the Department:

- (i) Date of accident;
 - (ii) Where accident occurred;
 - (iii) Nature of accident (fullest details to be given);
 - (iv) Name and address of attending physician;
 - (v) Name and address of hospital where treatment is being given;
 - (vi) Prognosis, including estimated time treatment will be required and estimated time the pensioner will be off work;
 - (vii) Whether temporary or permanent disability is anticipated;
- (b) On receipt from a Board or employer of notice of an accident the Department may furnish the Board or employer, as the case may be, with information respecting the pensionable disability of the pensioner and any other relevant circumstances;
- (c) If requested to do so, the Board or an employer shall accept the co-operation of medical officers of the Department;
- (d) First Aid or emergent treatment may be given by any medical practitioner, but any further or continued treatment shall, unless otherwise agreed upon with the Departmental medical authority, be undertaken by the Department and the Department may disclaim liability in any case which is not referred to the Department for this purpose;
- (e) In any case requiring a surgical operation or a prosthetic appliance which is usually manufactured by the Department, the pensioner shall, unless otherwise agreed upon with the Departmental medical authority, be transferred for treatment to such place as the Department may direct;
- (f) The services of the Department's specialists may be placed at the disposal of any Board or employer so that the case of any pensioner suffering prolonged incapacity may be reviewed and advice given thereon to the Board or employer;
- (g) If a pensioner has been transferred to the Department for treatment, progress reports shall be furnished as required, and at least monthly, to the Board but nothing in this paragraph shall be understood as prohibiting a medical referee of a Board from examining such pensioner at any time. If a pensioner is not so transferred, progress reports shall be furnished monthly, or as may be required, to the Department.

5. The Department may decline to accept responsibility in respect of any accident unless notice of such accident is received by the Department within three months of its occurrence and no payment shall be made by the Department in respect of an accident unless notice of such accident is received by the Department within six months of its occurrence.

6. The Department may, at any time, review any claim or award submitted herein, and, having considered all circumstances and evidence as well as any Departmental medical consultant opinion relating thereto, decide to disclaim liability or any further liability with respect thereto, and may give notice accordingly.

7. Expenditures under these regulations shall be paid from funds provided by Parliament for the purpose.

Department of Veterans Affairs Act—continued

2. Regulations governing Grants to the Last Post Fund for the Burial of Veterans

P.C. 178

AT THE GOVERNMENT HOUSE AT OTTAWA

MONDAY, the 26th day of January, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Veterans Affairs and pursuant to the provisions of Section 6 of The Department of Veterans Affairs Act, is pleased to order as follows:

1. The Regulations governing the grants made to the Last Post Fund, which were established by Order in Council P.C. 3568 of November 18, 1935, as amended, are hereby revoked; and

2. The following Regulations are hereby made and established in substitution for the Regulations hereby revoked:

REGULATIONS GOVERNING GRANTS TO THE LAST POST FUND FOR THE BURIAL OF VETERANS WHO DIE IN INDIGENT CIRCUMSTANCES

1. Any amount provided by Parliament for the purposes of the Last Post Fund shall be utilized, except as provided for in these regulations, to prevent the burial in Canada in a pauper's grave of any veteran who may die in indigent circumstances and who served on Active Service with His Majesty's Forces, or in the Forces of His Majesty's Allies or associates, or the burial in a pauper's grave outside of Canada of a veteran of the naval, military or air forces of Canada.

2. No portion of any such amount shall be used for the burial of dependents of veterans.

3. All burials shall be conducted in accordance with the regulations of the Last Post Fund.

4. The cost of burial shall mean the cost of the funeral, purchase of the grave when necessary, the opening and closing of the grave, and the erection of a marker.

5. (a) The Last Post Fund may pay the cost of a funeral excluding the services set forth in paragraphs (b) and (c) of this regulation, in an amount not exceeding the sum of seventy-five dollars (\$75);

(b) The Last Post Fund may purchase, when necessary, a grave in any cemetery and pay for the cost of the opening and closing thereof for the burial of a veteran conducted by the Last Post Fund;

(c) The Last Post Fund may place a marker standard with the Last Post Fund on the grave of a veteran buried by the Fund.

6. The Last Post Fund shall claim from the estate of a veteran or from any other source or person any amount payable by reason of the death of a veteran up to the cost to the Fund of the burial and shall apply the amount so recovered in accordance with the regulations of the Last Post Fund.

Department of Veterans Affairs Act—continued

7. Should a veteran die leaving insurance not exceeding the sum of five hundred dollars (\$500), and no other realizable estate, the Last Post Fund may conduct the funeral without claiming reimbursement if there is a widow or children who were solely dependent on him at the time of his death.

8. Should a veteran who is an Indian be buried on an Indian reservation by a department of Government, the Last Post Fund may erect a marker on his grave.

9. No responsibility shall be assumed for the burial of a veteran if conducted otherwise than by the Last Post Fund unless there are exceptional circumstances and such assumption of costs is approved by the Dominion Council of the Last Post Fund.

10. Notwithstanding these regulations, the Last Post Fund may conduct the burial of a veteran who does not die in indigent circumstances, if it is in the public interest to do so, provided that the full cost of the burial is repaid to the Last Post Fund.

11. Any amount provided by Parliament for the purposes of the Last Post Fund shall be administered by the Department of Veterans Affairs, subject to the following conditions:

- (a) Payment shall be made to the headquarters of the Last Post Fund in such amounts and at such times as may be found necessary.
- (b) The Department may pay to the Dominion Council of the Last Post Fund such an amount as is actually required to cover the cost of headquarters' administration, including salaries, rent, travelling expenses, stationery, printing, annual audit, etc., but such payments towards the cost of such administration shall not exceed the sum of eight thousand five hundred dollars, (\$8,500.00) per annum.

12. A representative of the Department of Veterans Affairs shall be appointed as a member of the Dominion Council of the Last Post Fund.

13. The Last Post Fund shall make reports to the Department of Veterans Affairs in such form and with such frequency as the Department may require from time to time.

N. A. ROBERTSON,
Clerk of the Privy Council.

3. Treatment and allowances for Veterans undergoing training under the Canadian National Institute for the Blind

P.C. 290

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 25th day of January, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the provisions of the Department of Veterans Affairs Act, Chapter 19 of the Statutes of

Department of Veterans Affairs Act—continued

Canada, 1944-45, is pleased to order and doth hereby order that, effective December 1, 1948, a person undergoing training under the Canadian National Institute for the Blind in accordance with the provisions of Order in Council P.C. 155/5570 of 1st December 1948 and who requires for his rehabilitation active remedial treatment which cannot be provided under the Regulations respecting the Medical Treatment and Care of Veterans established by Order in Council P.C. 2048 of 6th May 1948, as amended, shall be granted such treatment by the Department of Veterans Affairs, together with an allowance in respect of comforts and clothing if eligible therefore under conditions similar to those set forth in Clause 16 of the said Regulations.

N. A. ROBERTSON,
Clerk of the Privy Council.

4. The Continuation of Educational Services Order

P.C. 5142

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 11th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS it is deemed desirable that the provisions of Order in Council P.C. 2048 of 23rd May 1947, as amended, relating to the continuation of educational services, be consolidated;

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and under the authority of The Department of Veterans Affairs Act, is pleased to order as follows:

1. Order in Council P.C. 2048 of 23rd May 1947, as amended, is hereby revoked; and

2. The annexed Order entitled "The Continuation of Educational Services Order" is hereby made and established in substitution for the Order in Council hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE CONTINUATION OF EDUCATIONAL SERVICES ORDER

1. The Department of Veterans Affairs may continue to provide correspondence courses without training allowances, covering approximately the educational service given during the war by Canadian Legion Educational Services Inc., to the following groups:

- (a) members of the naval, military or air forces of Canada, including members of the permanent or regular forces;
- (b) former members of the naval, military or air forces of Canada, and other persons for whose care the Department of Veterans Affairs is responsible and whose rehabilitation would be facilitated thereby;

Department of Veterans Affairs Act—continued

- (c) former members of His Majesty's forces other than those raised in Canada;
- (d) former members of the armed forces of any of the nations allied with His Majesty in active operations against the enemy in the war which commenced on the first day of September, 1939;
- (e) at the request and expense of the Department of Justice, non-veterans serving terms in penitentiaries;
- (f) non-veteran employees of the Civil Service of Canada, provided that the cost of examining and marking papers shall be borne by the said employees;
- (g) at the request and expense of the Royal Canadian Mounted Police, non-veterans serving in the Royal Canadian Mounted Police.

2. No course shall be provided to a former member or non-veteran coming within the groups mentioned in paragraph (c), (d), (e), (f) or (g) of section 1 of this Order unless such former member or non-veteran is resident in Canada.

3. The value of any benefits accruing to a person under section 1 of this Order shall not reduce the Re-Establishment Credit of such person, nor reduce any other benefit for which such person is eligible.

4. Appropriate costs of this Order shall be charged to Veterans' Welfare Services.

5. The Guardianship of Veterans Regulations

P.C. 5471

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 1st day of November, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and under the authority of The Department of Veterans Affairs Act, Chapter 19 of the Statutes of Canada, 1944-45, is pleased to order as follows:

1. The Guardianship of Veterans Regulations, established by Order in Council P.C. 2708 of 17th April 1945, are hereby revoked; and
2. The annexed regulations entitled "The Guardianship of Veterans Regulations" are hereby approved and established in substitution for the regulations hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

THE GUARDIANSHIP OF VETERANS REGULATIONS

1. This Order may be cited as "The Guardianship of Veterans Regulations".

Department of Veterans Affairs Act—continued

2. The Department of Veterans Affairs may receive and retain any property held or moneys payable by the Crown or any other authority, person or persons on behalf of any person or his dependents where such person is being or has been cared for under the provisions of The Department of Veterans Affairs Act either by medical treatment, training or otherwise.

3. The Department of Veterans Affairs may dispose of any property or moneys received under and by virtue of regulation 2 to the person on whose behalf the property or money is received or to his dependents or as may be deemed expedient or to the estate of such person if deceased.

4. Where an insane person is being or has been cared for under the provisions of The Department of Veterans Affairs Act either by medical treatment, training or otherwise, the Deputy Minister of Veterans Affairs may assume guardianship in whole or in part in respect of any property held or moneys payable by the Crown or any other authority, person or persons on behalf of such insane person or his dependents.

5. Where, as a result of a person having served in the naval, military or air forces of any country other than that of Canada, moneys become payable to him or his dependents or to any other person, the Deputy Minister of Veterans Affairs may assume guardianship in respect of such moneys.

6. The Deputy Minister of Veterans Affairs may dispose of any property or moneys received by him under and by virtue of regulation 4 or 5 to the person on whose behalf the property or money is received or to his dependents or as may be deemed expedient or to the estate of such person if deceased.

7. A receipt given by the Deputy Minister of Veterans Affairs or by an officer of the Department of Veterans Affairs duly authorized by him, for property, including moneys, received under the authority of these Regulations, shall constitute a full and complete discharge for any such property, including moneys, received by the Department.

8. Where the Deputy Minister of Veterans Affairs assumes guardianship as authorized by regulation 4 or 5, he may perform the functions of such office without an order of the court or other formality and any notice in writing by him that he has assumed such guardianship shall be acceptable as evidence of the fact.

6. Regulations respecting the medical treatment and care of veterans and ancillary benefits

P.C. 6141

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 6th day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the Department of Veterans Affairs Act, chapter 19 of the Statutes of Canada, 1944-45, is pleased to order as follows:

Department of Veterans Affairs Act—continued

1. The Regulations respecting the medical treatment and care of veterans and ancillary benefits, approved and established by Orders in Council P.C. 2048 of 6th May, 1948, and P.C. 2286 of 20th May, 1948, as amended, are hereby revoked, effective December 1, 1949; and

2. The annexed "Regulations respecting the medical treatment and care of veterans and ancillary benefits", made by the Minister of Veterans Affairs under the authority of section six of The Department of Veterans Affairs Act, are hereby approved and established, effective December 1, 1949, in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

REGULATIONS RESPECTING THE MEDICAL TREATMENT AND
CARE OF VETERANS AND ANCILLARY BENEFITS

CLAUSE 1

Unless the context otherwise requires,

- (a) "a disability attributable to service" means a disability which is the result of an injury or disease incurred during military service or which pre-existed enlistment and was aggravated during military service, in respect of which pension has been awarded or entitlement conceded under the provisions of the Pension Act, other than pension awarded or entitlement conceded under section twelve or twenty-one of the Pension Act; it shall not be deemed to be such a disability prior to the effective date of the award or of the entitlement as fixed by the Commission;
- (b) "child" means a legitimate child of a former member of the forces or his illegitimate child for whom he is paying maintenance or is supporting; it also means his step-child or legally adopted child if he is maintaining such step-child or legally adopted child;
- (c) "Commission" means the Canadian Pension Commission;
- (d) "Department" means the Department of Veterans Affairs;
- (e) "Departmental medical authority" means a full-time medical or dental officer of the Department acting with the concurrence of the Director General of Treatment Services;
- (f) "dependent condition" means the condition of being without earning capacity or income sufficient to provide maintenance;
- (g) "dependents" means such persons on whose account additional pension has been awarded and is being paid and, in addition, such other persons as are specifically stated herein;
- (h) "former member of the forces" means any person who has served in any of the naval, military or air forces of Canada or Newfoundland during World War I or any person who has served on active service in any of such forces during World War II;
- (i) "improper conduct" or "misconduct" includes wilful disobedience of orders, wilful self-inflicted wounding and vicious or criminal conduct during or subsequent to military service;
- (j) "maintenance" means the cost to the Department for the provision of medical treatment, care and subsistence in a hospital or other

Department of Veterans Affairs Act—continued

institution operated by the Department, or the cost to the Department of these services in a hospital or other institution not operated by the Department but in regard to which the Department has entered into an agreement for the provision of the same, or such amount as the Department may determine in individual cases;

- (k) "military service" or "service" or "served", unless the term is qualified means and includes service in any of the naval, military or air forces of Canada or Newfoundland during World War I or active service in any of such forces during World War II;
- (l) "overseas service" means,
 - (i) in the case of the military or air forces during World War I, service in the zone of the allied armies on the continents of Europe, Asia or Africa or in any other place at which the former member of the forces has sustained injury or contracted disease directly by a hostile act of the enemy;
 - (ii) in the case of the naval forces during World War I, service on the high seas or wherever contact has been made with hostile forces of the enemy, or in any other place at which the former member of the forces has sustained injury or contracted disease directly by a hostile act of the enemy;
 - (iii) in the case of the naval, military or air forces during World War II, service on or before March 31, 1946, involving duties required to be performed outside the Western Hemisphere, and includes service on or before March 31, 1946, involving duties required to be performed outside Canada and the United States of America and the territorial waters thereof in aircraft or anywhere in a ship or other vessel, service in which is classed as "sea time" for the purpose of advancement of naval ratings, or which would be so classed were the ship or other vessel in the service of the naval forces of Canada;
- (m) "pension" means an award under the provisions of the Pension Act on account of the disability of a former member of the forces and includes additional pension, temporary pension, additional payment, final payment or any other payment awarded under that Act other than pension awarded under section twenty-one thereof; "pension" means also an award on account of disability made by the Commission under the provisions of The Civilian War Pensions and Allowances Act or any other Act or Regulation; "pension" does not include long service or other service pension or pension awarded in respect of a decoration;
- (n) "treatment" means medical, surgical and dental treatment, and the supply and maintenance of prosthetic appliances;
- (o) "Western Hemisphere" means the continents of North and South America, the islands adjacent thereto and the territorial waters thereof, including Newfoundland, Bermuda and the West Indies, but excluding Greenland, Iceland and the Aleutian Islands;
- (p) "World War I" means the war waged by the German Emperor and His Allies against His Majesty and His Majesty's Allies; and the period denoted by the term "World War I" is the period between the fourth day of August, one thousand nine hundred and fourteen and the thirty-first day of August, one thousand nine hundred and twenty-one, both dates inclusive;

Department of Veterans Affairs Act—continued

- (q) "World War II" means the war waged by His Majesty and His Majesty's Allies against Germany and Germany's Allies which for the purposes of these regulations shall be deemed to have commenced on the first day of September, one thousand nine hundred and thirty-nine, and shall be deemed to have terminated on the thirtieth day of September, one thousand nine hundred and forty-seven;
- (r) terms indicating the masculine gender apply also to the feminine gender.

CLAUSE 2

(1) The Department may examine, give treatment to, and admit to hospital for the purpose of examination, observation, treatment or domiciliary care, a former member of the forces who is suffering from a disability attributable to service and not due to misconduct and may also examine, give treatment to, and admit to hospital such other former members of the forces and other persons as are hereinafter specifically referred to in this clause.

(2) The Department may pay to any former member of the forces or other person undergoing treatment in hospital, or as an out-patient or otherwise, such allowances or other monetary benefits as are hereinafter authorized.

(3) For the purposes of examination, observation, treatment, domiciliary care and payment of allowances, all former members of the forces and other persons shall be classified as follows and may be paid such allowances, and receive such other benefits, as are hereby authorized for each class.

Class 1

- (a) A former member of the forces who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability attributable to service;
- (b) A former member of the forces or other person who is referred by the Commission to the Department for observation;
- (c) A former member of the North West Field Force, 1885, who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability for which entitlement to pension has been conceded;
- (d) A person who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability for which pension is in payment under section forty-eight or forty-nine of the Pension Act;
- (e) A person who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability in respect of which pension has been awarded or entitlement conceded by virtue of subsection two or subsection three of section twenty of The Statute Law Amendment (Newfoundland) Act.

(Hospital Allowance may be awarded in an amount which, when added to the pension award in force, if any, but excluding any addition to pension for blindness, will equal pension payable for 100 per cent disability less, while an inpatient, the sum of \$15.00 a month.)

Department of Veterans Affairs Act—continued

Class 2

(Spare)

Class 3

- (a) A former member of the forces who, in the opinion of Departmental medical authority, requires active remedial treatment or custodial care for a disability which has not been conceded by the Commission to be attributable to service and whose treatment has been authorized and commenced upon a date not more than 365 days after discharge from the forces, or from treatment in the class designated as Class 2 immediately prior to October 1, 1949, except that such treatment which has been so authorized within the said 365 days may be commenced on the authority of the Director General of Treatment Services on a later date not more than 18 months after discharge, determined by him, where the want of the necessary professional, technical or other treatment services or medical judgment prevents the commencement of treatment within 365 days after discharge; or

A former member of the forces who is undergoing, or has been approved by the Department for, a course of training with training allowances under The Veterans Rehabilitation Act and who, in the opinion of Departmental medical authority, requires for his rehabilitation active remedial treatment for which he does not qualify under the preceding paragraph;

and for the purpose of this subclass 'former member of the forces' shall include a former member of His Majesty's forces, other than the forces of Canada, who was domiciled in Canada or Newfoundland on the date of joining such forces for the purpose of World War II, and is domiciled in Canada at the time application for treatment in this subclass is made;

Subject to the following conditions:

- (1) That treatment shall be granted in Canada only;
- (2) That treatment shall be given without charge only where, in the opinion of the Department, he has no enforceable and recoverable claim against a third person for or in respect of such treatment or the cost thereof;
- (3) That treatment shall not, unless the Department otherwise directs, be authorized if he was discharged from the forces by reason of improper conduct or misconduct, or if treatment is required for a condition due to misconduct;
- (4) That treatment for one or more disabilities shall not be furnished under this subclass for a period, or for a total of various periods, in excess of the period of service of the former member of the forces during World War II, and in no case for more than twelve months;
- (5) That a former member of the forces shall be deemed to have been discharged from the forces on September 30, 1947, if he was serving on military service on that date.

Department of Veterans Affairs Act—continued

Special Hospital Allowance may be awarded to a person in subclass (a) of this class at the following rates:

Former member of forces	\$50.00
Additional allowance for dependents	
Wife	20.00
Person in lieu of wife	20.00
Each parent	15.00
1st and 2nd child, each	12.00
3rd child	10.00
4th, 5th and 6th child, each	8.00

provided

- (a) That Special Hospital Allowance shall be reduced by such amount as may be received by way of pension, and by way of other income in excess of \$20.00 a month, during the period in which such allowance is paid and as to the Department, having regard to the circumstances of the former member of the forces, seems right;
- (b) That the rate for a former member of the forces who is in hospital and who has no dependent or other obligations may be further reduced by \$15.00 a month or such lesser amount as to the Department seems right;
- (c) That any such dependent who has become such after the discharge of the former member of the forces shall be deemed to have become a dependent on and from the actual date of his having become such, or from February 1, 1944, whichever is the later date; and
- (d) That the total of such Special Hospital Allowance shall be a debt due on demand by the Department from the former member of the forces where he, in the opinion of the Department, has an enforceable and recoverable claim against a third person for or in respect of the disability for which treatment is given.

Class 4

A former member of the forces

- (a) who, in the opinion of Departmental medical authority, requires active remedial treatment for a sequela of a venereal disease in respect of which pension is payable; (If there are dependents, Hospital Allowance may be awarded in an amount which, when added to the pension award in force, if any, but excluding any addition to pension for blindness, will equal pension payable for 100 per cent disability less, while an in-patient, \$15.00 a month; if there are no dependents, Hospital Allowance is not payable and comforts and clothing may be furnished subject to the provisions of Clause 16 or 17.)
- (b) who, in the opinion of Departmental medical authority, requires active institutional treatment or custodial care for a sequela of a venereal disease which has been conceded by the Commission to have been incurred during service. (Comforts and clothing may be furnished subject to the provisions of Clause 16 or 17.)

Class 5

- (a) A former member of the forces who is in receipt of payment of pension, or who is not in receipt of pension but had overseas service and received an honourable discharge therefrom, or

Department of Veterans Affairs Act—continued

a person who served in World War I, or in World War II, in any of His Majesty's forces other than those of Canada, or in any of the forces of His Majesty's allied or associated powers, and who was resident or domiciled in Canada or Newfoundland on the fourth day of August, 1914, if service was in World War I, or the first day of September, 1939, if service was in World War II, and who in either case is in receipt of payment of pension for a disability related to his said service, or is not in receipt of such pension but had overseas service and received an honourable discharge therefrom, or

a former member of the forces who is undergoing a course of training approved for payment of training allowances under section seven, eight or nine of The Veterans Rehabilitation Act, or who is undergoing a course in a Canadian Vocational Training School or training institute which has been approved by the Department without the payment of training allowances, or fees, and who, in either case, during such course of training or instruction, in the opinion of Departmental medical authority, requires for his rehabilitation active remedial treatment which cannot be provided in another class;

and, in any case, who, in the opinion of Departmental medical authority, requires active remedial treatment for a disease or disabling condition other than that for which he is or was pensioned but not excluding a condition for which he is in receipt of pension under section twelve or twenty-one of the Pension Act;

Subject to the following conditions:

- (1) That such treatment may be provided, not as of right but only at the discretion of the Department, when in the opinion of the Department based on information which the Department possesses and/or on a statement made under oath on such form as may be prescribed by the Department in which he has sworn that he is not entitled to or eligible for the treatment from any source and that he is unable to arrange for or defray the total expenses of the treatment required through lack of adequate income and/or resources to obtain such treatment elsewhere;

In determining if he is without adequate income and/or resources to obtain the treatment elsewhere, the Department will consider the nature and extent of the treatment in relation to the amount of his income and resources and the extent to which they, having regard to all the circumstances, might be used to defray the cost of treatment. The decision regarding adequacy of income and resources relative to the estimated cost of treatment will be based on a scale set by the Department and approved by the Treasury Board;

- (2) That treatment shall be furnished in Canada in a hospital or clinic (including Departmental pavilions or wings of non-Departmental hospitals) operated by the Department under the supervision of a salaried officer of the Department and only to the extent to which facilities for such treatment are available therein, except that where, in the opinion of Departmental medical authority, the need for immediate treatment of a major medical or surgical condition is imperative and such condition

Department of Veterans Affairs Act—continued

prevents removal to such hospital, in which case treatment may be furnished in another accredited hospital in Canada under the supervision of a licensed medical or dental practitioner approved by the Department;

- (3) That treatment shall not be furnished if required for tuberculosis ordinarily treated in tuberculosis sanatoria, a mental disease, alcoholism or drug addiction;
- (4) That the Department shall not be responsible for his care while being conveyed to hospital or for expenses connected therewith; on discharge from in-patient treatment, transportation, including meals if required, may be furnished if he is without adequate income and/or resources from which such transportation and meals could, in the opinion of the Department, be provided;
- (b) A former member of the forces or other person who is a recipient of War Veterans' Allowance, other than as a widow or an orphan, and who, in the opinion of Departmental medical authority, requires active remedial treatment for a disabling condition not attributable to service;

Treatment shall be furnished in Canada only in a hospital or clinic (including Departmental pavilions or wings of non-Departmental hospitals) operated by the Department under the supervision of a salaried officer of the Department unless, in the opinion of Departmental medical authority, it is, by reason of unusual circumstances, imperative in the treatment interests of the individual concerned that the treatment be carried out in another accredited hospital in Canada under the supervision of a licensed medical or dental practitioner approved by the Department;

- (c) A former member of the forces who, directly or indirectly, applies for admission to hospital for the treatment of a disability attributable to service when, in the opinion of Departmental medical authority, there is uncertainty regarding the need for active remedial hospital treatment, or uncertainty regarding the primary condition for which hospital treatment, observation or care is required;
- (d) A former member of the forces who has been sentenced to imprisonment and who, during the period of his imprisonment, is considered to require active remedial treatment for a disability attributable to service, provided
 - (i) that admission is requested by the prison authorities;
 - (ii) that the prison medical officer has certified that such active remedial treatment is required and cannot be provided in a prison or other Provincial institution;
 - (iii) that, in the opinion of Departmental medical authority, following examination, such treatment is necessary and that the case is suitable for a Departmental hospital;
 - (iv) that treatment is not required for a mental disease or a condition due to improper conduct or misconduct;
 - (v) that the cost of transporting him to or from hospital shall not be a charge against the Department;
 - (vi) that the Department shall not be liable for his custody during the time he is receiving treatment.

Department of Veterans Affairs Act—continued

- (e) A former member of the forces or other person who is in a hospital operated by the Department in another class or in another subclass of this class shall be transferred to this subclass subject to the following conditions:
 - (1) That treatment or care may no longer be provided in another class or in another subclass of this class; and
 - (2) That, in the opinion of Departmental medical authority, he is in such a serious condition that medical judgment forbids his being transported to a hospital not operated by the Department or that, in such opinion, he cannot be, or it is not expedient that he be, discharged or transferred to such hospital; and
 - (3) That the cost of treatment or care shall, wherever possible, be recouped by the Department.
- (f) A former member of the forces who, in the opinion of Departmental medical authority, requires investigation or treatment which cannot be provided in another class or in another subclass of this class for a neuropsychiatric condition for which he is not committable either voluntarily or by certificate and which would assist in establishing the former member of the forces in civilian life subject to the following conditions:
 - (1) That treatment shall be furnished in Canada only in a hospital or clinic (including Departmental pavilions or wings of non-Departmental hospitals) operated by the Department under the supervision of a salaried officer of the Department in so far as facilities for treatment are available;
 - (2) That transportation to and from hospital, including meals if required, may only be furnished if he is without adequate income and/or resources from which such transportation and meals could, in the opinion of the Department, be provided;
 - (3) That, if he is entitled to treatment from any source, the cost thereof shall, wherever possible, be recouped by the Department.

(Comforts and clothing may be furnished for all subclasses of this class subject to the provisions of Clause 16 or 17.)

Class 6

(Veteran's Care)

A former member of the forces who is in receipt of payment of pension, or who is not in receipt of pension but had overseas service and received an honourable discharge therefrom, or

a person who served in World War I, or in World War II, in any of His Majesty's forces other than those of Canada, or in any of the forces of His Majesty's allied or associated powers, and who was resident or domiciled in Canada or Newfoundland on the fourth day of August, 1914, if service was in World War I, or the first day of September, 1939, if service was in World War II, and who in either case is in receipt of payment of pension for a disability related to his said service, or is not in receipt of such pension but had overseas service and received an honourable discharge therefrom, or

Veterans' Allowance other than as a widow or an orphan;

a former member of the forces or other person who is a recipient of War and in any case, who requires domiciliary care and is totally disabled, permanently or temporarily;

Department of Veterans Affairs Act—continued

may, in the discretion of the Department having regard to his circumstances, be provided with quarters and maintenance and, when necessary, treatment, subject to the following conditions:

- (1) That he shall, if required, pay to the Department for administration, while receiving veterans' care, pension and any other income and resources to which he may be entitled; and that from any balance, after providing for a trust fund and comforts and clothing, the Department may apply towards the cost of maintenance a sum not exceeding \$120.00 a month, provided that any pension paid to the Department in respect of dependents shall be utilized for the benefit of such dependents and that such other pension and any other income and resources be applied in accordance with a scale set by the Department and approved by the Treasury Board;
- (2) That should he, following admission, require treatment, for a disability attributable to service if he be a former member of the forces, or for a disability for which he is pensioned in other cases, he shall be granted such treatment, but shall not be transferred from this class;
- (3) That transportation on the first admission to this class may be furnished, if necessary; but shall not be furnished on discharge, unless he is discharged with the approval of the Department and is not in receipt of payment of pension and/or has no other funds from which transportation could be provided, in which case the Department may issue transportation consisting of rail, bus or boat fare, including meals, to the point from which he was brought in or a point equidistant thereto.

(Comforts and clothing may be furnished, subject to the provisions of Clause 16 or 17.)

Class 7

A person who, in the opinion of the Departmental medical authority, requires active remedial treatment for a disability in respect of which entitlement to pension has been conceded under the provisions of

- (a) Part I of The Civilian War Pensions and Allowances Act as a former Canadian Merchant Seaman or as a former Canadian Salt-Water Fisherman;
- (b) Part II of The Civilian War Pensions and Allowances Act as a former member of the Auxiliary Services Personnel;
- (c) Part III of The Civilian War Pensions and Allowances Act as a former member of the Corps of (Civilian) Canadian Fire Fighters for Service in the United Kingdom;
- (d) Part VI of The Civilian War Pensions and Allowances Act as a former Air Raid Precautions Worker;
- (e) Part VII of The Civilian War Pensions and Allowances Act for Injury During Remedial Treatment;
- (f) Part VIII of The Civilian War Pensions and Allowances Act as a former member of the Voluntary Aid Detachment;
- (g) Part IX of The Civilian War Pensions and Allowances Act as an Overseas Welfare Worker;
- (h) Part X of The Civilian War Pensions and Allowances Act as a Civilian Member of Overseas Air Crew;

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- (i) The Pension Act as a Special Operator as defined in The Special Operators War Service Benefits Act;
- (j) The Civilian Government Employees (War) Compensation Order, dated 22nd November, 1944 (P.C. 45/8848);
- (k) Order in Council dated 22nd November, 1944 (P.C. 44/8848), relative to injuries arising as a result of a flight undertaken in the course of duty in the public service of Canada;

(Hospital Allowance may be awarded in an amount which, when added to the pension award in force, if any, but excluding any addition to pension for blindness, will equal the pension payable by the Commission under the appropriate Act or Order in Council referred to in this class were the disability assessed at 100 per cent, less, while an in-patient, the sum of \$15.00 a month.)

Class 8

A former member of the forces or other person who requires

- (a) the completion of an examination required by the Commission;
- (b) the completion of an examination required by the Department or for the supply, renewal or repair of a prosthetic appliance by the Department;
- (c) the completion of an examination required by the War Veterans' Allowance Board;
- (d) the completion of an examination arising from his having been a prisoner of war in World War II.

(If eligible, an allowance for loss of wages may be awarded subject to the provisions of Clause 19.)

Class 9

A former member of the forces or other person

- (a) who becomes violently ill or sustains a serious accident in or in the near vicinity of a Departmental hospital and/or who has been brought to a Departmental hospital without regular authority, if, in the opinion of Departmental medical authority, he is in such a serious condition physically that medical judgment forbids his being transported to the nearest civilian hospital;

(He may only be detained in hospital and afforded treatment until other arrangements for the continuation of treatment can, with safety, be made. The cost of treatment shall, wherever possible, be recouped by the Department.)

- (b) who is an employee of the Department and who, while on duty in a hospital operated by the Department, contracts a communicable disease as a direct result of exposure while in attendance on patients suffering from such disease;

(Comforts and clothing may be furnished to a person in sub-class (a) or (b) under the provisions of Clause 16.)

- (c) A former member of the forces or a former member of His Majesty's forces other than those of Canada who is resident in Canada and who is in receipt of payment of pension of not less than 25 per centum, in respect of disability related to service in any such force, and who suffers an injury while employed in an industry, provided the Department is liable under any enabling authority to reimburse

Department of Veterans Affairs Act—continued

a Workmen's Compensation Board or an employer for the cost of treatment if not furnished by the Department; and provided further that, when such former member served only during World War II in any of His Majesty's forces other than the forces of Canada, he shall have been domiciled in Canada at the time of his enlistment.

(No allowance or benefits.)

Class 10

- (a) A person, other than the dependent of such a person, for whom the Department of National Defence is responsible for the total cost of examination, observation or treatment and who is referred to the Department by the Department of National Defence for examination, observation or treatment. Treatment may be provided only in an institution operated by the Department, and shall be subject to recovery of the cost from the Department of National Defence by an annual billing of an amount arrived at by negotiation between the Department of Veterans Affairs and the Department of National Defence.

(No allowance or benefits.)

- (b) A person for whom the Royal Canadian Mounted Police is responsible for the total cost of examination, observation or treatment, and who is referred to the Department by the R.C.M.P. for examination, observation or treatment, which shall be subject to recovery of the cost from the R.C.M.P. by an annual billing of an amount arrived at by negotiation between the Department and the R.C.M.P.

(No allowance or benefits.)

Class 11

- (a) A member of the permanent naval or military forces or the regular air force of Canada or Royal Canadian Mounted Police who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability attributable to service.

(No allowance or benefits.)

- (b) A person who, in the opinion of Departmental medical authority, requires active remedial treatment for a disability in respect of which pension has been awarded or entitlement conceded by the Commission under subsection two of section eleven of the Pension Act in respect of military service rendered either in the Non-permanent Active Militia, or the Reserve Army during World War II, or in peacetime.

(If no disability allowance is payable by the Department of National Defence, Hospital Allowance may be awarded in an amount which, when added to the pension award in force, if any, but excluding any addition to pension for blindness, will equal pension payable for 100 per cent disability less, while an in-patient, the sum of \$15.00 a month.)

Class 12

- (a) A person who requires examination, observation, treatment or institutional care which cannot otherwise be provided. (Such services shall be supplied only at the discretion of the Department when

Department of Veterans Affairs Act—continued

deemed to be in the public interest, and provided that the Government of the country or some other responsible body, politic or corporate, has requested any such service or services and has assumed liability for the expense thereof. (No allowance or benefits.)

- (b) A person other than a person qualified for admission in Class 10, for whom examination, observation, treatment or institutional care is requested by any department of the Government of Canada. (Such services shall be supplied only at the expense of the department concerned. No allowance or benefits.)
- (c) A former member of His Majesty's forces other than those of Canada and of the forces of His Majesty's allies or associates in the South African War, in World War I or in World War II for whom examination, observation, treatment or institutional care is requested by the Government concerned. (Such services shall be supplied only at the request and expense of the Government concerned. When the Government concerned has decided or decides that the disability for which admission is made is related to service or when the Government concerned grants a monetary benefit of the same nature as Hospital Allowance, and when domicile within the provisions of section forty-five, forty-six, forty-six A, or forty-seven of the Pension Act has been established to the satisfaction of the Commission, Hospital Allowance may be awarded in an amount which, when added to the sum of any monetary benefit of the same nature as pension or Hospital Allowance received from the Government concerned during such period of treatment and any payment during such period under any of the sections aforesaid, but excluding any addition to such payment for blindness, will equal pension payable for 100 per cent disability under the Pension Act less, while an in-patient, the sum of \$15.00 a month.)
- (d) A former member of the forces who requires examination, observation, treatment or institutional care which cannot be provided in another class or in another subclass of this class, subject to the following conditions:
 - (i) that such treatment may be provided only in a Departmental hospital or out-patient clinic of a Departmental hospital;
 - (ii) that the cost of such treatment shall be recoverable from a hospital or medical service prepayment plan or plans.
 (No allowance or benefits.)

CLAUSE 3

(Spare)

CLAUSE 4

The Department may transfer to any appropriate class set forth in Clause 2 hereof any former member of the forces or other person who was admitted for examination, observation, treatment or domiciliary care, where it is subsequently found that the conditions, under which hospitalization is or was being granted, no longer apply, or he may be discharged from hospital.

CLAUSE 5

A person who is an inmate of a Departmental institution or other institution at the expense of the Department shall be required to perform such duties as may be assigned to him by the District Departmental Medical

Department of Veterans Affairs Act—continued

Officer or the Hospital Superintendent, provided that his physical or mental condition will permit. If the duties are performed in an institution where there is a salaried officer of the Department and are of such a character as to warrant remuneration, the Department may, in its discretion, award a small remuneration.

CLAUSE 6

The Department may direct the withholding of pass and other special privileges, or the withholding, forfeiture or cancellation of Hospital Allowance or other benefits from or in respect of a former member of the forces or other person who

- (a) transgresses hospital or institutional rules, or
- (b) unreasonably refuses to undergo medical or surgical treatment, other than a major surgical operation, which, in the opinion of Departmental medical authority, he requires, or
- (c) retards his treatment by improper conduct or misconduct, and may also discharge him from the hospital or institution.

CLAUSE 7

(1) The Department may give out-patient treatment which, in the opinion of Departmental medical authority, is required by a former member of the forces for a disability attributable to service or is so required by a person for a disability in respect of which entitlement to pension has been awarded by the Commission under any other law or regulation.

(2) The Department may give out-patient treatment which, in the opinion of Departmental medical authority, is required by a former member of the forces for a disability not attributable to service provided he would qualify for in-patient treatment for such disability in any of the classes, and under the terms thereof, set forth in Clause 2 and further provided such disability is usually and adequately treatable on an out-patient status.

(3) Out-patient treatment shall be furnished at a clinic or a hospital by a salaried officer of the Department unless, in the opinion of Departmental medical authority, it is expedient that treatment be carried out elsewhere under the supervision of a licensed medical or dental practitioner approved by the Department.

(4) If, in the opinion of Departmental medical authority, a former member of the forces or other person who is in hospital or who qualifies for admission to hospital for treatment at the expense of the Department in a class under Clause 2 requires a period of

- (a) convalescence on discharge from hospital following a surgical operation or a severe illness; or
- (b) probation on discharge from an institution following treatment of a mental disability; or
- (c) treatment which can adequately be furnished at home and which is required by reason of an illness so acute that medical judgment forbids his being transported to hospital; or
- (d) treatment while awaiting admission to hospital when such deferred admission is deemed necessary or advisable;

such convalescence, probation or treatment as may be required for the disability for which he was or might be admitted to hospital may be authorized and, if during such period he was unable or it was not in his own or in

Department of Veterans Affairs Act—continued

the public interest to be gainfully employed and he was not so employed, the Department may, in its discretion, award the allowance where payable for an out-patient under the class. Provided that in any special case under paragraph (a), (b) or (d) where, owing to the nature of the disabling condition, it is considered by Departmental medical authority that it would be in his own interest if he undertook part-time or light employment, the allowance may be awarded but such allowance shall be reduced by the amount of any earnings received during the period of such out-patient treatment.

CLAUSE 8

(Spare)

CLAUSE 9

The Department shall have authority to operate such hospitals for psychiatric treatment of persons suffering from mental diseases as may be deemed necessary, and may make such arrangements with the Provincial governments in regard to such hospitals as may be required and may also, when it is recognized by Departmental medical authority that the Department is liable for maintenance, make arrangements with a Provincial government for the care and treatment of a former member of the forces, who is not mentally responsible, in a Provincial institution for the treatment of a mental disease.

CLAUSE 10

The Department may enter into agreements with any government of the British Commonwealth of Nations or of the nations allied or associated with His Majesty in World War I or in World War II

- (a) for the examination of, and/or for the provision of active remedial treatment required by, a former member of the forces in any country other than Canada, or may make other direct provision in individual cases, provided that such treatment is required for a disability attributable to service and that the former member of the forces is ordinarily resident in the country in which treatment is requested;
- (b) for the examination of, and/or for the provision of treatment required by, a former member of the forces of such other country in Canada or in any other country and, in accordance with any such agreement, may issue such hospital allowance or other benefits as may be authorized by the Government concerned subject to subsequent reimbursement by such Government.

CLAUSE 11

The Department may, in its discretion, pay for the cost of treatment obtained by a former member of the forces or other person which was not previously authorized by the Department if, in the opinion of Departmental medical authority, he qualified at the time treatment was obtained, or now qualifies by virtue of a decision by the Commission or War Veterans' Allowance Board, under the terms and conditions of a class in Clause 2; provided

- (1) That an application for the treatment or the payment of the cost thereof has been made by him or on his behalf or by the person who furnished or paid for the treatment; and

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- (2) That the payment shall not exceed the amount paid by him or the amount which may be paid by the Department, whichever is the lesser, the latter amount to be computed on the basis of the approved departmental rate in respect of hospital accounts and on the basis of the departmental schedule of fees in respect of physicians', dentists' or druggists' accounts, or such amount as the Department may determine in individual cases; and
- (3) That no payment shall be made for any portion of the cost of the treatment for which he is or was entitled to receive or recover the value thereof from any other source unless the treatment was required for a disability attributable to service;

and further provided,

- (a) That, if treatment for a disability attributable to service was obtained prior to the date of notification of award of pension or entitlement by the Commission, payment may be made
 - (i) from the effective date of award of pension or entitlement or September 1, 1946, whichever is the later, if the date of such notification was prior to January 1, 1949, or
 - (ii) from the effective date of award of pension or entitlement or September 1, 1946, whichever is the later, if the date of such notification is subsequent to January 1, 1949, and if application has been made within sixty days of the date of such notification;
- (b) That, if treatment for a disability attributable to service was obtained subsequent to the date of notification of award of pension or entitlement by the Commission, payment may be made
 - (i) from a date not more than thirty days prior to the date of application, unless there existed unusual circumstances which precluded or justified the delay in making such application when payment may be made from a date not more than sixty days prior to the date of such application; or
 - (ii) notwithstanding any limitation contained in subparagraph (b)
 - (i), if, when the treatment was obtained, it was not known or deemed to be required for a disability attributable to service and it has been established that it was required for such disability or for a condition directly related thereto,
 - from a date not more than eighteen months prior to date of application where it arose from service during World War I; or
 - from a date not more than thirty-six months prior to the date of application where it arose from service during World War II; or
 - (iii) notwithstanding any limitations contained in subparagraphs (b) (i) and (ii),
 - from the date of commencement of treatment if application has been made by the government of a country or agency thereof for payment of the cost of treatment furnished outside Canada;
- (c) That, if treatment was obtained for a disability not attributable to service, payment may be made from a date not more than thirty days prior to the date of application unless there existed unusual circumstances which precluded or justified the delay in making such application when payment may be made from a date not more than sixty days prior to the date of such application;

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- (d) That, if treatment for a disability not attributable to service was obtained following refusal of an application therefor by the Department or refusal of War Veterans' Allowance by the War Veterans' Allowance Board and if such Allowance was awarded after such treatment was obtained, payment may be made
- (i) from the effective date of the award of the Allowance or June 1, 1948, whichever is the later, if the date of notification of the award of the Allowance was prior to January 1, 1949; or
 - (ii) from the effective date of the award of the Allowance or June 1, 1948, whichever is the later, if the date of the award of the Allowance was subsequent to January 1, 1949, and if application has been made within sixty days of the date of such notification.

CLAUSE 12

(1) If a former member of the forces or other person dies or has died in a hospital or other institution where treatment, examination, or care has been authorized at the expense of the Department, or while undergoing a period of authorized out-patient treatment with Hospital Allowance, the Department may arrange and/or pay for the funeral and burial, subject to the following conditions:—

- (i) That, where burial takes place in a cemetery at or contiguous to the place at which death occurred, an amount not in excess of \$110.00 may be paid for the services of a funeral director which shall include the supply of a casket, shipping or outside case, embalming of the body for burial, local transportation of the body, use of a hearse, use of two carriages, where necessary, for mourners and/or pallbearers, use of chapel or funeral parlours, or such lesser amount as may, in the discretion of the Department, be determined when all of such services are not supplied by the funeral director;
- (ii) That, where burial takes place in a cemetery at a distance from the place at which death occurred and was not conducted by the funeral director who prepared the body and furnished the casket, an amount not in excess of \$35.00 may be paid for the necessary services supplied by the funeral director at the place of burial;
- (iii) That an amount may be paid to cover the cost of the opening and closing of the grave;
- (iv) That an amount may be paid to cover the cost of a single grave, if such grave was required for the burial and was purchased on or about the date of death;
- (v) That, where in order to comply with Provincial or other laws regarding burial, it is necessary to provide a hermetically sealed case, an amount in excess of that authorized in condition (i) may be paid, such excess amount to be the difference between the actual cost to the funeral director of such hermetically sealed case and the actual cost of the casket which otherwise would have been supplied;
- (vi) That an amount may be paid to cover the cost of transporting the body to the place to which transportation might have been furnished under Clause 19 of these regulations or to a point equidistant thereto;
- (vii) That the cost of cremation of the body may be paid in an amount which shall not exceed the cost of the services which otherwise would have been supplied or paid for by the Department under the provisions of this clause;

Department of Veterans Affairs Act—continued

(viii) That, in any case where any or all of the services set forth in this paragraph are not arranged or supplied by the Department, an amount may be paid not in excess of that which would have been paid had the Department made the arrangements or supplied any or all of such services.

(2) The Department may purchase from time to time single graves or blocks of graves in any cemetery for the burial of former members of the forces or other persons who may die while on the strength of the Department for treatment or for whose burial the Department is otherwise responsible.

(3) The Department may place a standard marker on a grave, in the Dominion of Canada, of any former member of the forces or other person, for whose treatment and burial the Department has been responsible, and whose death occurred while receiving treatment in any of the classes set forth in Clause 2 hereof, provided that the responsibility for the erection of a marker, standard either with the Department or with the Imperial War Graves Commission, cannot be assumed by any other authority.

(4) Payments made or cost of services supplied under this clause shall be considered to be a part of the cost of treatment for purposes of Clause 26 of these regulations.

CLAUSE 13

When a former member of the forces who has been undergoing treatment for a mental disability not attributable to service has sufficiently recovered to be allowed temporarily to pass under his own control, or that of his friends, there may be awarded, in the discretion of the Department, an allowance at the rate of \$1.00 a day, less any payment of pension of which he may be in receipt, for a period not exceeding three months, if not entitled to allowances from another source.

CLAUSE 14

If a legal guardian or curator has been appointed, under the authority of a court with proper jurisdiction, to administer the affairs and assume responsibility for the person of a former member of the forces suffering from a mental disability, or an administrator has been appointed by the Commission under the authority of the Pension Act to administer his pension, he may, in the discretion of the Department, be discharged from hospital and transferred to the care of such guardian, curator or administrator, but any balance of hospital or other allowance, standing to the credit of the former member of the forces, shall not be paid unless it is considered to be in his interests that this be done. The Department may, in its discretion, require any guardian, curator or administrator to furnish a bond in an adequate amount.

CLAUSE 15

Hospital Allowance and Special Hospital Allowance as defined in Clause 2 of these regulations shall be awarded to or on behalf of the former member of the forces or other person and his dependents, if any, and paid in arrears in accordance with the following conditions and modifications:

- (1) (i) During in-patient treatment, payment of Hospital Allowance may be paid in the following manner:
 - to or on behalf of the man in an amount which, when added to the pension in payment, if any, shall not exceed \$20 a month;
 - to or on behalf of his dependents, the balance available;

Department of Veterans Affairs Act—continued

- (ii) During in-patient treatment, Special Hospital Allowance may be paid in the following manner:

to or on behalf of the man in an amount which, when added to the pension in payment, and other income in excess of \$20 a month, if any, shall not exceed \$20 a month;
to or on behalf of his dependents, the balance available;

Provided the Department may pay a larger or smaller proportion of the amount awarded to or on behalf of the man or his dependents if deemed advisable. On the conclusion of treatment any balance of the allowance, or pension paid to the Department for administration, may be administered by the Department or paid in full to the man or to his dependents.

- (2) Hospital allowance shall be awarded in accordance with the rank for which pension has been awarded or entitlement conceded.

- (3) The allowance awarded for an out-patient under the provisions of Clause 7 may, in the discretion of the Department, be paid in full to the man.

- (4) The additional allowance provided for a wife may, in the discretion of the Department, be awarded if the former member of the forces is a widower and is maintaining a home, so long as there is a minor child or are minor children, provided there exists a daughter or other person competent to assume and who does assume the household duties and care of the child or children.

- (5) The additional allowance for a wife may, in the discretion of the Department, be awarded with respect to a woman who, although not married to the former member of the forces, was living with him at the time he became a member of the forces and for a reasonable time previously thereto and on whose account Separation or Dependents' Allowance was awarded or to whom Assigned Pay was issued by the Department of National Defence.

- (6) When a man and wife are undergoing treatment with allowance at the same time, no additional allowance shall be awarded on account of the wife. If there are children, the children may be regarded as dependents of the man.

- (7) No additional allowance shall be awarded on behalf of any child who is married or who, if a boy, is over the age of 16, or, if a girl, is over the age of 17, except when such child and those responsible for its maintenance are without adequate resources and

- (i) such child is unable, owing to physical or mental infirmity, to provide for its own maintenance, in which case the allowance may be paid while such child is incapacitated by physical or mental infirmity from earning a livelihood; provided that no allowance shall be awarded unless such infirmity occurred before the child attained the age of 21 years; or

- (ii) such child is following and is making satisfactory progress in a course of instruction approved by the Department, in which case the allowance may be paid until such child has attained the age of 21 years;

provided that no additional allowance shall be awarded when the Commission has refused an application for the extension of the payment of additional pension for such child or when treatment is provided under Class 3 of Clause 2.

Department of Veterans Affairs Act—continued

(8) The Department may award the additional allowance in respect of a parent or person in place of a parent if such parent or person is in a dependent condition, provided

- (i) that additional pension for such parent or person has not been refused by the Commission, and
- (ii) that such parent or person was wholly or to a substantial extent maintained by the former member of the forces previous to his enlistment or during his service, or was maintained wholly or to a substantial extent by him when treatment commenced and for a reasonable time prior thereto.

(9) If a former member of the forces is not living with and/or is not fully maintaining his dependent or dependents, he shall be awarded the allowance applicable to a man without dependents, but if he was contributing towards the maintenance of such dependent or dependents when treatment commenced, the Department may award an additional allowance not exceeding one-half of his monthly contribution or the additional allowance provided in the schedule whichever is the lesser. From the total amount so awarded the Department may pay to the dependent or dependents such amount as may be deemed necessary, not exceeding, unless the man so requests, the amount of the said contribution.

(10) The additional allowance for a dependent is maximum; a lesser allowance may be awarded, in the discretion of the Department.

(11) All applications for additional allowance in respect of a dependent or dependents, eligible for consideration under the provisions of the Pension Act or any other Act or Order in Council administered by the Commission, shall be submitted to the Commission before dependency is recognized by the Department.

(12) Hospital Allowance shall be increased by an amount equal to any allowance awarded by the Commission for wear and tear of clothing.

(13) The provisions of this clause, which are not inconsistent with the provisions of Class 3 or Class 7 of Clause 2, shall apply, with such modifications as circumstances may require, to the awarding and payment of Special Hospital Allowance.

CLAUSE 16

Comforts and clothing, where authorized in respect of any class under Clause 2, may be furnished to a former member of the forces or other person, subject to the following conditions:

- (1) if he is in receipt of any pension or other income which, in the opinion of the Department, is not required for the support of his dependents, if any, or has a credit balance with the Commission or the Department, or possesses other money or resources, he shall, unless the Department otherwise directs, provide his own comforts and clothing;
- (2) if he has no income or if his entire income is, in the opinion of the the Department, required for the support of his dependents, if any, or to meet obligations which, if not met, would inflict hardship upon him, a sum not exceeding \$5.00 a month may be awarded for the provision of comforts, and clothing may be furnished, when necessary, up to a value not exceeding \$8.00 a month;
- (3) if, after providing for his dependents, if any, and after his obligations have been met, his income is less than \$13.00 a month and he

Department of Veterans Affairs Act—continued

has no credit balance, the Department may furnish comforts and clothing, if required, up to a value equal to the difference between the income and \$13.00 a month;

- (4) No unexpended amount provided by the Department for clothing shall be payable to a former member of the forces or other person on discharge from hospital;
- (5) in any case in which his income or other resources is greater than is required for the support of his dependents, if any, to meet his obligations, and for the provision of comforts and clothing, the Department may require that any excess be administered by the Department.

CLAUSE 17

Where treatment for a mental disability not attributable to service is being provided as a Departmental responsibility and pension is in payment for other than a mental disability, there may, subject to the discretion of the Commission, be paid to the Department from the pension award, a sum not exceeding \$43.00 a month, towards the cost of maintenance and the provision of comforts and clothing, provided

- (a) that the difference between the Hospital Allowance which would be awarded if the disability were attributable to service and the pension payable prior to the reduction of the latter under the provisions of subsection two of section twenty-nine of the Pension Act shall be considered as a payment towards the said cost of maintenance;
- (b) that, if the sum paid to the Department is \$13.00 a month or more, the Department may repay to him for comforts a sum not exceeding \$5.00 a month and may furnish such clothing as, in the opinion of the Department, he may require at a cost not exceeding \$8.00 a month; and that, from any balance, the Department may apply towards the partial cost of maintenance a sum not exceeding \$30.00 a month;
- (c) that, if the sum paid to the Department is less than \$13.00 a month, the Department may pay to him a sum not exceeding \$5.00 a month for comforts and may furnish him with such clothing as, in the opinion of the Department, he may require, provided that the cost of such clothing shall not exceed \$8.00 a month;
- (d) that, if no sum is paid to the Department, the Department may pay to him a sum not exceeding \$5.00 a month for comforts and may furnish him with such clothing as, in the opinion of the Department, he may require, provided that the cost of such clothing shall not exceed \$8.00 a month;
- (e) that no unexpended amount provided by the Department for clothing shall be payable to a former member of the forces on discharge from hospital.

CLAUSE 18

A former member of the forces or other person who is in receipt of an addition to pension under subsection one of section twenty-six of the Pension Act because of paraplegia may, on admission to hospital, be awarded, in addition to the allowances, if any, authorized under the provisions of these regulations, for a period not exceeding two months, an allowance not exceeding such addition to pension.

Department of Veterans Affairs Act—continued

CLAUSE 19

(1) For the purpose of carrying out the provisions of any Act or Order of the Governor in Council administered by the Minister, the Department may direct a former member of the forces or other person to report at any place.

(2) The following may be granted to a former member of the forces or other person directed by the Department or the Commission to report at any place, to cover travelling by the most direct route to and from his place of residence, subsistence and other out-of-pocket expenses while travelling or while detained at the place where directed to report, and loss of wages while necessarily absent from his regular occupation:

- (a) Return railway transportation, with sleeping berth if necessary, and/or reasonable charges for other modes of transportation when necessary and if supported by proper vouchers, provided that when a privately owned automobile is used the transportation allowance shall be three cents a mile or the equivalent of one railway fare, irrespective of the number of passengers carried;
- (b) Meals, in transit, if not provided by the transportation company, at \$1.25 each;
- (c) Board and quarters during the time detained, which shall wherever possible be furnished at a Departmental institution, but if such cannot be furnished by the Department, the following rates shall apply: meals each, 75 cents; lodging, \$3.00 a night;
- (d) Reimbursement for loss of wages of an amount up to but not exceeding \$5.00 a day, provided that loss has been incurred and that documentary evidence satisfactory to the Department has been produced. If he is admitted to hospital, he shall not be paid for loss of wages on the day of admission or discharge or during his stay in hospital except when detained in hospital under Class 8 of Clause 2;
- (e) Where, in the opinion of Departmental medical authority, services of an escort, other than a dependent of a former member of the forces or other person, are required, the amount of \$5.00 a day in lieu of loss of wages may be paid for the period of necessary absence of such escort from his regular domicile.

(3) A former member of the forces or other person who reports for examination or treatment without having been directed to report shall not be granted the benefits set forth in this clause unless

- (a) he is in receipt of payment of pension and the examination results in an increase of pension for his recognized pensionable disability or the award of a further pension in respect of a disability not previously recognized, or in active institutional treatment with Hospital Allowance; or
- (b) he is not in receipt of payment of pension and the examination results in an award of pension or active institutional treatment with Hospital Allowance; or
- (c) he would have been directed to report had he made proper application;

when he may, in the discretion of the Department or the Commission, be granted the said benefits, unless he reported to an officer of the Department outside the District to which he would have been directed to report had he made proper application, in which case he shall not be paid an amount in excess of that which would have been paid had he reported under direction.

Department of Veterans Affairs Act—continued

(4) The benefits set forth in this clause shall be applicable in Canada only unless otherwise determined by the Department. When a former member of the forces or other person is not resident in Canada, he shall be paid such travelling and out-of-pocket expenses for the services covered by this clause as the Department may from time to time determine, provided that, where possible, the amount payable and the conditions of payment shall be those prevailing between the Government of the country in which the former member of the forces or other person is residing and the former members of the forces of the said country.

CLAUSE 20

Free railway transportation for travel in Canada may be issued to any former member of the forces who is in receipt of a total disability pension for blindness or for any other disability which necessitates an escort accompanying such former member of the forces, provided

- (a) That transportation shall only be issued in cases where an escort travels with the former member of the forces and shall cover the fare of the escort only and not that of the former member of the forces;
- (b) That this provision shall not apply to cases of regular travel but only when the former member of the forces is travelling on his annual vacation or at other infrequent intervals;
- (c) That transportation shall not be issued unless prior approval of the Department has been obtained;
- (d) That the Department shall have discretionary power when or when not to accord the foregoing privilege.

CLAUSE 21

The Department may authorize the payment of simple interest, at the rate of three per cent per annum, on the amounts of Hospital Allowance or other moneys withheld under the provisions of these regulations, or any other enabling authority, from a former member of the forces or other person for a period of three months or longer and may pay a similar rate of interest on any moneys which it is deemed advisable to receive and hold; such interest to be credited when the account is being closed out; provided that no interest shall be payable by the Department on moneys which are withheld or held owing to failure on the part of a former member of the forces or other person, other than a person under legal age, or of any age if mentally or physically incompetent, to claim the amount due or to furnish the Department with his proper address, or owing to the disturbed condition of the country in which he or his dependents reside.

CLAUSE 22

- (1) (a) The Department may accept any funds or property bequeathed or donated for the benefit of persons coming within the provisions of any Act or Order of the Governor in Council administered by the Minister and may hold in trust and administer such funds or property in accordance with the conditions of any such bequest or donation or in such manner and under such conditions as may be deemed advisable, and for such purpose shall designate two or more officers of the Department as trustees of such funds or property;

Department of Veterans Affairs Act—continued

- (b) Any funds held in trust by officers of the Department as such, other than those held by the trustees of the Disablement Fund, shall be deposited to the credit of the Receiver General of Canada in a Departmental trust fund subject to withdrawal on the authority of such officers by cheque drawn on the Receiver General of Canada.

(2) All moneys obtained from the operation of a hospital canteen shall be deposited to the credit of the Receiver General of Canada in a Departmental trust fund and shall be administered by the Department.

(3) The Department may authorize the payment of interest, at the rate fixed from time to time by the Governor in Council to be paid in respect of deposits in the Post Office Savings Bank, on all the funds which are held in trust under the authority of subsection (1) of this clause and deposited to the credit of the Receiver General of Canada, such interest to be computed and credited on the minimum monthly balance in each account on March 31 and September 30 of each year.

CLAUSE 23

The Deputy Minister of Veterans Affairs may sign the discharge or release of a chattel mortgage taken in favour of His Majesty by way of security for a loan made to a former member of the forces under the provisions of any previous Order in Council.

CLAUSE 24

If, in the opinion of the Department, any overpayment of public moneys issued under these regulations or other enabling authority has been or be made to a former member of the forces or other person, the Department may authorize the reduction, suspension or withdrawal of future payments awarded under these regulations until the amount of such reduction, suspension or withdrawal equals the amount of the overpayment.

CLAUSE 25

Any amount standing to the credit of a former member of the forces or other person, representing pay and allowances or compensation previously awarded under any Order in Council or any allowance awarded under these regulations, unpaid at the time of his death, shall not form part of his estate but shall, where the provisions of the Pension Act apply, be disposed of as directed by the Commission, or, where such provisions do not apply, as directed by the Department.

CLAUSE 26

The Department may require a former member of the forces or other person before becoming entitled to treatment or other benefits granted by these regulations or at any time during treatment or the enjoyment of such benefits to complete such forms or other documents as may be deemed necessary and if he refuses to do so the Department may refuse to grant or to continue to grant such treatment or other benefits.

Where a person is suffering from a disability in respect of which he is not entitled to a pension under the Pension Act or under any other law or regulation, and if such person

- (a) is not entitled to, or by reason of financial circumstances cannot afford, necessary treatment for such disability, or

Department of Veterans Affairs Act—continued

- (b) is entitled to recover the whole or a part of the value of such treatment from another source, or
- (c) fails, for any reason, to disclose to the Department his ability to pay for the required treatment,

and, as by virtue of these regulations the Department is authorized to supply the necessary treatment, the Department, either as a condition to the giving or the continuation of such treatment and/or the payment of allowances, or after such treatment or allowances have been given or paid, may require him to execute an agreement to repay to the Department the cost of such treatment and allowances and to take or agree to take any legal or other steps which the Department deems necessary to recover any insurance moneys, damages, or other compensation payable in respect of such disability or such part of either as may be sufficient to satisfy the claim of the Department, or to require such former member or other person to assign to the Department or its nominee all rights in such insurance moneys, damages, or other compensation, to the extent at least of an amount sufficient to satisfy such claim including any solicitor's or court costs.

CLAUSE 27

A veteraft operative shall, while in receipt of wages from the Department, be deemed to be an employee in the service of His Majesty within the meaning and for the purposes of The Government Employees Compensation Act, 1947.

CLAUSE 28

(1) The Department may compile and issue from time to time a schedule or schedules of fees to be payable to duly licensed physicians, surgeons and druggists for medical examinations, medical treatment, surgical operations, medical supplies and remedies, the examination of files and other correlated services, and may issue instructions with regard thereto.

(2) The Department may compile and issue from time to time a schedule or schedules of fees to be payable to duly licensed dentists for dental examination and treatment.

CLAUSE 29

In any matters which are left to the discretion or determination of the Department, the decision of the Department shall be final, and in any matters which are left to the discretion or determination of the Commission, the decision of the Commission shall be final.

CLAUSE 30

All sums payable pursuant to these regulations shall be payable by the Comptroller of the Treasury.

Department of Veterans Affairs Act—*continued***7. The Merchant Seaman Vocational Training Order**

P.C. 6227

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Transport and the Minister of Veterans Affairs and pursuant to the provisions of section five of The Department of Veterans Affairs Act, chapter 19 of the Statutes of Canada, 1944-45, is pleased, hereby, to revoke Order in Council P.C. 5983 of 29th December, 1948 (The Merchant Seaman Vocational Training Order), and to make the following Order in substitution therefor:

ORDER

1. This Order may be cited as "The Merchant Seaman Vocational Training Order".

2. In this Order, "merchant seaman" means a person under thirty years of age, domiciled and resident in Canada, who has received or was eligible to receive a bonus under The Merchant Seamen Special Bonus Order or under The Merchant Seamen War Service Bonus Order, 1944.

3. Subject to the terms of this Order, upon application to the Department of Veterans Affairs by a merchant seaman on or before September 30, 1950, the said Department may provide him with a course of vocational training and pay the appropriate allowances and fees to him or on his behalf as if such seaman were eligible therefor as a veteran under subsection (1) of section 7, subsection (1) of section 11, and section 12 of The Veterans Rehabilitation Act.

4. Sections 13 and 14 and 17B of The Veterans Rehabilitation Act shall be deemed to apply *pari passu* to a merchant seaman receiving training under this Order.

5. A merchant seaman shall not be eligible for training under this Order unless he has ceased to be employed at sea or for reasons acceptable to the Minister of Transport he desires to leave such employment, and in all applications for training under this Order the Minister of Transport shall decide as to eligibility and periods of entitlement of applicants.

6. A merchant seaman pursuing a course of training under this Order may be given remedial treatment and be paid appropriate allowances or other monetary benefits as if he were eligible therefor as a former member of the forces under subclass (a) of Class 3, Clause 2 of Order in Council P.C. 6141 of 6th December, 1949.

7. Training provided under this Order shall be given only in Canada.

8. No allowances shall be paid under this Order with respect to training undertaken prior to January 1, 1949.

Department of Veterans Affairs Act—concluded

9. No allowances shall be paid under this Order to a merchant seaman who has previous to January 1, 1949, received a grant under paragraph 11 of The Merchant Seamen Special Bonus Order.

10. This Order shall be administered by the Minister of Veterans Affairs; The Veterans Rehabilitation Order shall govern administration in so far as it may be applicable to merchant seamen and the Minister, with the approval of the Minister of Transport, may make such special rules and orders as he may deem necessary or advisable for carrying out the provisions of this Order.

11. A merchant seaman shall commence training within six months after his application for training has been approved or before the 31st day of January, 1951, whichever is the later date, unless a deferment of training is granted by the Minister of Transport for a specific reason before that date.

12. Notwithstanding anything contained in section 2 or section 9 of this Order the Minister of Transport and the Minister of Veterans Affairs may in their discretion provide any unemployed merchant seaman domiciled and resident in Canada who has received or was eligible to receive a bonus under The Merchant Seamen Special Bonus Order or The Merchant Seamen War Service Bonus Order, 1944, with vocational training, allowances and other benefits under this Order.

13. Subject to moneys being voted by Parliament for the purpose the Department of Transport shall reimburse the Department of Veterans Affairs for all expenditures made under this Order by the said Department.

N. A. ROBERTSON,
Clerk of the Privy Council.

FIRE FIGHTERS WAR SERVICE BENEFITS ACT. (1946, c. 52)

No statutory orders or regulations have been made under this statute.

PENSION ACT. (R.S.C., 1927, c. 157)

No statutory orders or regulations have been made under this statute.

RETURNED SOLDIERS' INSURANCE

See RETURNED SOLDIERS' INSURANCE ACT.

SOLDIER SETTLEMENT LOAN REGULATIONS

See SOLDIER SETTLEMENT ACT.

SPECIAL OPERATORS WAR SERVICE BENEFITS ACT, (1946, c. 64)

No statutory orders or regulations have been made under this statute.

SUPERVISORS WAR SERVICE BENEFITS ACT. (1946, c. 66)

No statutory orders or regulations have been made under this statute.

VETERANS' ASSISTANCE COMMISSION ACT. (1936, c. 47)

No statutory orders or regulations have been made under this statute.

VETERANS' BUSINESS AND PROFESSIONAL LOANS ACT.
(1946, c. 69)

The Veterans' Business and Professional Loans Regulations

P.C. 5730

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 10th day of November, 1949

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Finance and pursuant to the provisions of section seven of The Veterans' Business and Professional Loans Act, chapter 69 of the Statutes of Canada, 1946, is pleased to order as follows:

1. The Veterans' Business and Professional Loans Regulations, established by Order in Council P.C. 3041 of 31st July, 1947, as amended, are hereby revoked; and

2. The annexed regulations entitled "The Veterans' Business and Professional Loans Regulations" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE VETERANS' BUSINESS AND PROFESSIONAL LOANS REGULATIONS

1. These Regulations may be cited as the Veterans' Business and Professional Loans Regulations.

2. (1) All words and expressions used in these Regulations, other than those hereinafter defined, shall, unless the context otherwise requires, have the same meaning as they have in the Act.

(2) For the purposes of the Act and these Regulations

(a) "authorized representative of the Minister of Veterans Affairs" means a District Administrator of the Department of Veterans Affairs or any other person authorized by the Minister of Veterans Affairs to act as his representative;

(b) "responsible officer of the bank" includes the manager, assistant manager or accountant of a branch of the bank or the person for the time being acting as such a manager, assistant manager or accountant.

(3) In these Regulations, unless the context otherwise requires,

(a) "Act" means the Veterans' Business and Professional Loans Act;

(b) "motorized unit" means any power-driven conveyance for use on land, water or in the air.

(4) For the purpose of the Act and these Regulations a veteran who is the mortgagor, joint mortgagor, purchaser or joint purchaser under an agreement for sale, joint owner or tenant in common of land shall be deemed to be the owner of the land.

Veterans' Business and Professional Loans Act—continued

3. Whenever under these Regulations any matter or thing is in the discretion of a bank, such discretion may be exercised by a responsible officer of the bank.

4. Pursuant to section 7 (1) (c) of the Act the following are prescribed as purposes deemed to benefit a veteran's business, or the business of a partnership in which a veteran is a partner, namely,

- (a) the purchase of a motorized unit for use by the veteran in his business or in the business of a partnership in which he is a partner;
- (b) the purchase of land for the construction, repair or alteration of or making of additions to any building or structure used or to be used in the carrying on of a veteran's business or in the business of a partnership in which he is a partner; and
- (c) the purchase of any building or structure with or without the land on which it is situated, used or to be used in the carrying on of his business or in the business of a partnership in which he is a partner.

5. No loan shall be made by a bank pursuant to the Act unless,

- (a) application is made by the veteran in accordance with Schedule A to these Regulations or in a form to the like effect;
- (b) the loan is repayable in equal instalments that are payable not less frequently than quarterly; and
- (c) the principal amount of the loan applied for does not exceed two-thirds of the proposed total expenditure by the veteran for the purpose stated in the application.

6. Subject to the Act and these Regulations a bank may make loans under the Act:

PURCHASE OF A BUSINESS

- (a) for the purchase of a business other than the purchase of an interest in an existing partnership or the advance of capital for a new partnership, if
 - (i) evidence in writing of the proposed contract for purchase of a business, setting out the total cost as shown in paragraph 2 of the application, is submitted by the veteran with his application;
 - (ii) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing payment, by the veteran to the sellers of the business, of the total cost thereof as set out in paragraph 2 of the application; and
 - (iii) in the case of a loan in excess of \$1,000 security is taken at the time the loan is made by way of mortgage or hypothec upon, or an assignment of the rights and interest of the veteran as purchaser of, any real or immovable property of which title passes to the veteran or of which he acquires a right of purchase as part of the business purchased but this condition shall apply only where the net value of such real or immovable property as shown in the financial statement required by paragraph 2 of the application exceeds \$1,000;

Veterans' Business and Professional Loans Act—continued**PURCHASE OF AN INTEREST IN EXISTING PARTNERSHIP OR ADVANCE OF CAPITAL FOR NEW PARTNERSHIP**

- (b) for the purchase of an interest in an existing partnership or the advance of capital for a new partnership, if
 - (i) evidence in writing of the proposed contract for purchase of an interest in the existing partnership or the advance of capital for the new partnership, setting out the total cost as shown in paragraph 2 of the application, is submitted by the veteran with his application;
 - (ii) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing payment, by the veteran to the sellers, of the total cost, or that the veteran has made the said advance of capital, as set out in the financial statement required by paragraph 2 of the application; and
 - (iii) in the case of a loan in excess of \$1,000 to a veteran who states in his application that he will acquire at least a half-interest in the said partnership, security is taken at the time the loan is made by way of mortgage or hypothec upon any real or immovable property belonging to the partnership in which the veteran acquires an interest under the partnership agreement or by way of an assignment of the rights and interest of the partnership as purchasers of any real or immovable property, but this condition shall apply only where the net value of such real or immovable property as shown in the financial statement required by paragraph 2 of the application exceeds \$1,000;

PURCHASE OR REPAIR OF MACHINERY, TOOLS, INSTRUMENTS OR OTHER EQUIPMENT EXCEPT A MOTORIZED UNIT

- (c) for the purchase or repair of machinery, tools, instruments or other equipment but not including a motorized unit, if
 - (i) in the case of a loan for the purpose of financing such purchase (not repairs), evidence in writing of the proposed purchase of the machinery, tools, instruments or other equipment, setting out the total cost as shown in paragraph 2 of the application, is submitted by the veteran with his application;
 - (ii) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing payment, by the veteran to the sellers, of the total cost of such machinery, tools, instruments or other equipment, and to the extent that the said repairs, except for small amounts representing the cost of casual or miscellaneous purchases, is made up of the cost of parts or materials, evidencing payment, by the veteran to the sellers, of the total cost thereof as set out in paragraph 2 of the application; and
 - (iii) in the case of a loan in excess of \$1,000, security by way of chattel mortgage is taken on the machinery, tools, instruments or other equipment if the loan is made in any province where such security in this form may be taken;

Veterans' Business and Professional Loans Act—continued

**CONSTRUCTION, REPAIR OR ALTERATION OF OR ADDITIONS TO BUILDINGS
OR STRUCTURES AND RELATED PURCHASE OF LAND**

- (d) for the construction, repair or alteration of or making of additions to any building or structure and the purchase of land for any such purpose, if
- (i) the veteran is or is to become the owner of the land in respect of which all or part of the proceeds of the loan are to be expended or holds a lease covering such land extending at least five years beyond the term of the loan applied for;
 - (ii) where the veteran contracts with any person for the construction, repair or alteration or the making of additions, evidence in writing of the proposed contract setting out the total cost as shown in paragraph 2 of the application is submitted by the veteran with his application;
 - (iii) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing that where there is such contract the veteran has paid to the contractors the total cost as set out in paragraph 2 of the application or, where all or part of the proceeds of the loan are to be used in purchase by the veteran of building materials, that except for the cost of casual or miscellaneous purchases, the veteran has paid to the sellers of the building materials the total cost thereof as set out in paragraph 2 of the application; and
 - (iv) in the case of a loan in excess of \$1,000, security is taken upon the land in respect of which all or part of the proceeds of the loan are to be expended by way of mortgage or hypothec or an assignment of purchaser's rights and interest under an agreement for sale but this condition shall not apply where the borrower has only a leasehold interest;

PURCHASE OF MOTORIZED UNIT

- (e) for the purchase of a motorized unit, if
- (i) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing payment by the veteran to the seller of the motorized unit, of the total cost thereof as set out in paragraph 2 of the application;
 - (ii) security by way of chattel mortgage is taken on the motorized unit if the loan is made in any province where security in this form may be given; and
 - (iii) the term of the loan does not exceed a maximum period of eighteen months;

**PURCHASE OF BUILDING OR STRUCTURE WITH
OR WITHOUT LAND**

- (f) for the purchase of any building or structure, with or without the land on which it is or is to be situated, if
- (i) the veteran is or is to become the owner of the land in respect of which all or part of the proceeds of the loan are to be expended or holds a lease covering such land extending at least five years beyond the term of the loan applied for, and

Veterans' Business and Professional Loans Act—continued

evidence in writing of the contract or proposed contract therefor setting out the total cost as shown in paragraph 2 of the application, is submitted by the veteran with his application;

- (ii) the bank requires the veteran to agree to deliver to the bank receipts or paid cheques evidencing payment by the veteran to the seller, of the total cost of the purchase; and
- (iii) in the case of a loan in excess of \$1,000, security is taken by way of a mortgage or hypothec upon the land, if any, so purchased, or on any land owned by the veteran to which the building or structure becomes affixed, but this condition shall not apply where the borrower has only a leasehold interest;

PAYMENT INTO FUNDS OF PARTNERSHIP

- (g) for the making of a payment by a veteran into the funds of a partnership of which he is partner, if
 - (i) the partnership business is the main occupation of the veteran and he participates actively in it;
 - (ii) the moneys paid by the veteran into the funds of the partnership are to be expended by the partnership for any purpose set out in paragraphs (a), (c), (d), (e), or (f) of Regulation 6, and the conditions set out therein are complied with by the partnership; and
 - (iii) the partnership and all partners in the partnership sign as co-makers the promissory note for the loan.

EXPENDITURE BY VETERAN BETWEEN JANUARY 1, 1946, AND JANUARY 15, 1947

7. Where a veteran, or a partnership business of which he is a partner, produces receipts or paid cheques evidencing that he or it has made an expenditure for any purpose set out in paragraphs (a), (b), (c), (d), (e), (f) or (g) of Regulation 6 between January 1, 1946, and January 15, 1947, inclusive, the amounts so expended shall be deemed to be part of the total expenditure of the veteran for the purpose stated in the application, but the amount so deemed shall not exceed one-third of the total expenditure and shall have been in respect of the same business.

SECURITY—REAL ESTATE JOINTLY OWNED

8. Where a veteran is a joint mortgagor, joint purchaser, joint owner or tenant in common of land and these regulations require security to be taken, by way of mortgage or hypothec upon the land or by way of assignment of the agreement for sale, the mortgage, hypothec or assignment shall be given or entered into by the joint mortgagors, joint purchasers, joint owners, or tenants in common as the case may be.

CHATTEL MORTGAGE SECURITY

9. Where security by way of chattel mortgage in favour of His Majesty the King in right of Canada is or has been given pursuant to these Regulations, any affidavit of *bona fides* or renewal of the chattel mortgage may be made or executed by a responsible officer of the bank or by an authorized representative of the Minister of Veterans Affairs, but nothing in these Regulations shall be deemed to make applicable to His Majesty in right of Canada any legislation requiring the registration of bills of sale.

Veterans' Business and Professional Loans Act—continued

OTHER SECURITY FOR LOAN

10. (1) Except as hereinafter provided in this Regulation a bank shall not be required to take any security other than that required by Regulation 6.

(2) Where a borrower makes default in any payment in respect of an unsecured loan or where before default the bank and the borrower agree, pursuant to Regulation 19, to a revision or alteration of any of the terms of an agreement in connection with an unsecured loan, the bank shall, where practicable, require the borrower to give such security on real or personal property of the borrower as a responsible officer of the bank considers appropriate in the circumstances.

(3) In any other case where, in the opinion of a responsible officer of the bank, security or further security is required or advisable, the bank may take such security as a responsible officer of the Bank considers appropriate in the circumstances.

11. The bank may,

- (a) as a condition to granting a loan require the borrower to insure any property purchased or to be purchased with the proceeds of the loan, or
- (b) carry insurance to cover any loss sustained by the bank as a result of the loan and charge the borrower with the cost of such insurance.

12. Subject to such terms and conditions as the Minister deems advisable to protect the interests of His Majesty and notwithstanding that the loan in respect of which the borrower applies for release of security has not been repaid in full,

- (a) the Minister may discharge or partially discharge a chattel mortgage given by the borrower in favour of His Majesty the King in right of Canada;
- (b) the bank may, with the approval of the Minister given pursuant to recommendation of the bank, release or partially release any security taken by the bank.

APPLICATION FOR LOAN

13. (1) An applicant for a loan shall submit to the bank a signed application in accordance with Schedule A to these Regulations, or in a form to the like effect.

(2) A responsible officer of the bank shall scrutinize and check the application with the care required of him by the bank in the conduct of its ordinary business, and if he is satisfied that the conditions and purposes of the loan are such as to qualify it for guarantee under the Act, he shall certify the application to that effect.

(3) Where an application is certified pursuant to paragraph (2) of this Regulation, an application and a copy thereof shall be forwarded by the bank to the Minister of Veterans Affairs or his authorized representative, and no loan shall be made pursuant to such application until it has been concurred in, in writing, by the Minister of Veterans Affairs or his authorized representative.

Veterans' Business and Professional Loans Act—continued

(4) All applications, or copies thereof, in respect of which loans are or have been made in each quarterly period shall be sent to the Minister of Finance with the quarterly report required by paragraph (1) of Regulation 21.

(5) Where there is added to an application, for the purposes of paragraph 2 of the said application, a statement that the relative loan is required for a purpose set out in paragraph (f) or paragraph (g) of Regulation 6, such application shall be deemed to be in accordance with Schedule A to these Regulations, or in a form to the like effect.

PROMISSORY NOTES

14. Promissory notes for loans made shall be in accordance with Schedule B to these Regulations, or in a form to the like effect.

OFFENCES

15. If it comes to the knowledge of a responsible officer of the bank that a statement in an application for a loan is false in any material respect or that a borrower has used or is using the proceeds of a loan otherwise than for the purpose specified in the application or that the borrower is wrongfully disposing of the property purchased with the proceeds of the loan, the bank may take any action which it deems proper in the circumstances and shall immediately report the situation to the Minister who may request the bank to take such action or further action as he may require.

LIABILITY OF MINISTER UNAFFECTED

16. Where, notwithstanding that an application has been scrutinized and checked by a responsible officer of the bank with the care required of him by the bank in the conduct of its ordinary business, it is discovered that a false material statement has been made therein or that the proceeds of the loan have been or are being used otherwise than for the purpose specified in the application, the liability of the Minister to the bank under the Act shall not be discharged thereby to any extent.

TERMS OF LOAN

17. (1) Subject to section 3 (1) (f) of the Act and Regulation 6 (e) (iii), the term of the loan shall be fixed by the bank, which shall use its best endeavours to see that the term and the amount and frequency of instalment payments conform with the borrower's probable ability to pay, having regard to the type of business carried on or to be carried on by him and to any special circumstances.

(2) Except in cases where, in the opinion of the bank, it is inadvisable to do so, loans shall be made in accordance with the following schedule:

<i>Loans not exceeding</i>	<i>Maximum term</i>
\$ 200	18 months
400	2 years
750	3 years
1,250	4 years 6 months
2,000	7 years
3,000	10 years

Veterans' Business and Professional Loans Act—continued

WHEN ENTIRE AMOUNT BECOMES DUE AND PAYABLE

18. Where the borrower is in default in respect of any payment the entire amount of the balance outstanding on the loan shall, at the option of the bank, thereupon become due and payable.

REVISION OF TERMS OF LOAN

19. (1) Where a borrower is in default or advises the bank that some of the terms of the agreement in connection with his loan are such that he will have to default, and where in either case the bank is of the opinion that a revision or alteration of some of the terms of the agreement will enable the borrower to meet his obligation, the bank may with approval of the borrower, alter or revise the agreement in any or all of the following ways:

- (a) by extending the time within which the loan must be entirely repaid, notwithstanding that such extension exceeds the term prescribed by section 3 (1) (f) of the Act or Regulation (6) (e) (iii);
- (b) by reducing the amount of the periodic instalments or by increasing them if they are to be paid less frequently; and
- (c) by increasing or decreasing the periods between such instalments but in no case shall instalments be due less frequently than every six months.

(2) If the terms of the altered or revised agreement do not exceed the limitations prescribed by section 3 (1) (f) of the Act or by Regulation 6 (e) (iii), the liability of the Minister to the bank under the Act shall not be discharged to any extent where the bank notifies the Minister of such alteration or revision and the reason therefor by registered letter mailed within thirty days after the alteration or revision becomes effective.

(3) Where the terms of the altered or revised agreement would result in the limitations prescribed by section 3 (1) (f) of the Act or by Regulation 6 (e) (iii) being exceeded, the agreement shall not become effective until the bank has notified the Minister of the proposed alteration or revision and has received the Minister's approval thereof, in which event the alteration or revision shall not discharge to any extent the liability of the Minister to the bank under the Act.

PROCEDURE ON DEFAULT

20. Where the entire amount of the balance outstanding on a loan is due and payable by reason of default by the borrower in respect of any payment, the bank may take such steps as it considers advisable, including the institution of legal proceedings,

- (a) to effect collection of the outstanding balance;
- (b) to obtain additional security;
- (c) to realize upon the security; and
- (d) to effect a compromise with or grant concessions to any person other than the borrower;

to the extent that it considers advisable, but nothing done by a bank pursuant to this Regulation shall discharge, to any extent, the liability of the Minister to the bank under the Act.

Veterans' Business and Professional Loans Act—continued**REPORTS TO MINISTER**

21. (1) The bank shall prepare and mail to the Minister by ordinary post within thirty days following the last day of March, June, September and December, respectively, of each year, quarterly reports showing particulars of loans made in the quarterly period in accordance with Schedule C to these Regulations or in a form to the like effect.

(2) The bank shall prepare and mail to the Minister by ordinary post within thirty days following the last day of March, June, September and December, respectively, of each year, quarterly reports showing particulars of loans in default for over sixty days in accordance with Schedule D to these Regulations or in a form to the like effect.

(3) The bank shall furnish such other information as the Minister may from time to time require.

CLAIMS

22. A claim for loss sustained by a bank in respect of a guaranteed loan may be made to the Minister at any time not less than 90 days after the entire amount of the loan becomes due and payable, whether such amount becomes due and payable by reason of default on the part of the borrower, or otherwise.

23. (1) The amount of loss sustained by a bank in respect of a guaranteed loan for which claim for loss is submitted shall include:

- (a) the unpaid amount of the loan;
- (b) the uncollected earned interest calculated at the rate of two and one-half per cent per annum until the claim is approved for payment;
- (c) any uncollected taxed or taxable costs and any disbursements for or incidental to legal or other proceedings in connection with the loan; and
- (d) legal fees, costs and disbursements, whether taxable or not, actually incurred by the bank, whether with or without litigation, in collecting or endeavouring to collect outstanding loans or in protecting the interests of the Minister, but only to the extent that such fees costs and disbursements are taxed and allowed by the Deputy Minister of Justice.

(2) A claim for loss shall be submitted to the Minister by the bank in accordance with Schedule E to these Regulations, or in a form to the like effect.

(3) Where a claim for loss is in accordance with the Act and these Regulations, it shall be approved for payment by the Minister within sixty days after receipt thereof and shall be paid forthwith.

(4) Where payment of the amount of loss in respect of a guaranteed loan is made by the Minister to the bank it shall execute a receipt in favour of the Minister in accordance with Schedule F to these Regulations or in a form to the like effect, and such receipt shall be mailed to the Minister by ordinary post together with the promissory note or notes signed by the borrower, and the bank shall deal with any security held by it for the said loan as the Minister may direct and at his expense.

24. Where a bank claims for loss in respect of a guaranteed loan and the Minister is satisfied that

- (a) the bank has not delivered to the Minister substantially all of the amount and kind of receipts or paid cheques that the veteran is required to deliver to the bank under the agreement made by him with the bank pursuant to these Regulations; and

Veterans' Business and Professional Loans Act—continued

(b) the proceeds of the loan were not used by the veteran substantially for the purpose set out in paragraph 2 of the application for the loan,
the amount of loss in respect of the part of the loan that the Minister is satisfied was not used substantially for the purpose set out in the said paragraph 2 shall, notwithstanding Regulation 23, be deemed to be fifty per cent of the amount claimed in respect of the said part.

RECOVERIES

25. (1) A bank shall, on behalf of the Minister, and notwithstanding that its claim for loss is paid in full, take such steps as the Minister considers reasonable and necessary to collect payment of principal and interest and taxed costs due by the borrower, and to realize upon any security held pursuant to these Regulations.

(2) The amounts collected or realized by the bank pursuant to paragraph (1) of this Regulation shall be remitted to the Minister every six months.

(3) The actual expenses incurred by the bank pursuant to paragraph (1) of this Regulation shall be paid by the Minister.

REGISTRY

26. The Minister shall maintain a registry for the purpose of recording loans made under the Act.

SCHEDULE "A"

APPLICATION FOR LOAN UNDER THE VETERANS' BUSINESS AND PROFESSIONAL LOANS ACT
(To be completed and signed in triplicate by applicant. Bank to send two copies to District Administrator, D.V.A., for concurrence. If loan made, one copy to accompany next quarterly report to Minister of Finance—See Regulation 13)

		Application Number
	
To.....	Name of Bank	Name of Applicant
	
	Address	Phone No.

	Branch	Official or Reg. No. Rank District (at date of discharge)

(1) I declare:

(a) that I am resident and domiciled in Canada, have received or am entitled to receive a gratuity under The War Service Grants Act, 1944, have not elected to take benefits under The Veterans' Land Act, 1942 and that the amount of my re-establishment credit is \$..... of which \$..... has already been drawn.

(b) that except as indicated below I have not heretofore applied for or received a loan under the provisions of The Veterans' Business and Professional Loans Act.

Date of Application	Bank	Amount
.....
.....

Veterans' Business and Professional Loans Act—continued

(2) I submit the following information for the purpose of obtaining from you a loan of \$..... under the provisions of The Veterans' Business and Professional Loans Act, for a period of..... repayable..... the loan being required for:—

- Insert X
opposite
class of
loan
required
- ☐ (a) Purchase of a business.
- ☐ (b) Purchase of an interest in existing partnership or advance of capital for new partnership, such partnership business to be my main occupation and I intend to participate actively in that business. I will acquire a.....per cent interest in the partnership.
- ☐ (c) Purchase of machinery, tools, instruments or other equipment which are to be used in my business.
- ☐ (d) Repair of machinery, tools, instruments or other equipment of which I am the owner and which are to be used in my business.
- ☐ (e) Construction, repair or alteration of or making additions to buildings or structures, which are used or to be used in carrying on my business, and which are located or to be located on land of which I am the owner (legal or equitable) or purchaser under an Agreement for Sale or which is held by me under lease extending at least five years beyond the term of the loan applied for.
- ☐ (f) Purchase of motorized unit which is to be used in my business.

(If loan is for (a) or (b) attach financial statement and full details of business or partnership together with written evidence of proposed contract.
If loan is for (c), or for (e) except where veteran proposes to purchase building materials, attach written evidence of the proposed purchase or contract.
If loan is for (f) state legal maximum price, if any.)
The total cost or estimated cost being \$..... made up as follows:
(Give detailed itemized list.)

Description	Cost
.....
.....
.....

and I agree to furnish you with the following security
.....
.....

(3) I am years of age, am married/single and have dependents. (If a resident of Quebec) I am common/separate as to property.

(4) My previous business experience has been as follows: (Give particulars of employment or if in business for self).

.....
.....
.....

References: (Other than employers or endorsers)
.....
.....

Veterans' Business and Professional Loans Act—continued

(5) The following is a statement of my financial position as at
 19....

Assets	Liabilities
Cash on hand and in bank...\$	Bank\$
Accounts Receivable\$	Accounts Payable\$
Other Assets (specify).....\$	Taxes\$
.....	Mtge. Interest\$
.....	Other Debts (specify).....\$
.....
Plant and Machinery.....\$	.....
Real Estate\$	Mtge. Principal\$
.....
.....
\$	\$

Turnover 19..... \$..... 19..... \$..... 19.....
 Net Profit/Income 19..... \$..... 19..... \$..... 19..... \$.....
 Obligations in arrears or default
 Obligations as endorser or guarantor
 Judgments or legal proceedings pending
 Life Insurance carried \$..... C.S.V. \$..... Beneficiary
 Fire Insurance carried, Inventory \$..... Machinery \$..... Building \$.....
 Real Estate (give full details, including short legal description)

- (6) If you are prepared to make me a loan in accordance with the foregoing application, I hereby,
- (a) undertake to use the proceeds for the purpose specified in Section (2) of this application and for no other purpose;
 - (b) undertake not to encumber or dispose of any property purchased with the proceeds of this loan without your consent;
 - (c) undertake to deliver to you a receipt or receipts or paid cheque or cheques evidencing that payment of the total cost as set out in paragraph (2) of this application or that the advance of capital as set out in the financial statement required by paragraph (2) of this application has been made by me.
 - (d) agree to furnish from time to time at my expense such security and insurance as the Bank may require to secure the loan and the interest thereon;
 - (e) agree that in the event of my failure to furnish or to keep in good standing any required insurance, the Bank may obtain or renew such insurance and charge me with the cost thereof;
 - (f) authorize you, if security be required, to have any necessary registration or filing effected at my expense, and to obtain evidence satisfactory to you of the rank of such security and charge me with the cost of so doing;
 - (g) authorize you to furnish to any officer of the Department of Veterans Affairs any information in respect of the loan hereby applied for or in connection with any of my dealings with you.

Veterans' Business and Professional Loans Act—continued

(7) I hereby affirm that the foregoing information is true and correct.

.....19....

Signature of Applicant

Certificate of a responsible officer of the Bank

I hereby certify that I have scrutinized and checked the foregoing application with the care required of me by the Bank in the conduct of its ordinary business and that to the best of my knowledge the conditions and purposes of the loan applied for are such as to qualify it for guarantee under the Veterans' Business and Professional Loans Act and relative Regulations made thereunder;

.....19....

Signature of Officer

This application is concurred in on behalf of the Minister of Veterans Affairs.

Ref. No.

.....19....

Authorized representative

SCHEDULE "B"**PROMISSORY NOTE.—THE VETERANS' BUSINESS AND PROFESSIONAL LOANS ACT**

\$..... Application No. 19....

For Value Received promise to pay to the order of
..... at its Branch
(Name of Bank)

the sum of Dollars
(hereinafter called the "principal"), with interest at the rate of 5 per cent per annum, the principal to be payable in instalments as follows: Dollars
..... Dollars
on the day of 19...., together with accrued interest on the unpaid principal, and Dollars
on the day of each and every thereafter, together with accrued interest on the unpaid principal, until the day of 19.... on which date the principal and accrued interest then unpaid shall become due and payable. The calculation of interest by the bank shall not be final but shall be subject to any necessary adjustment in each case so that the rate charged shall be exactly the rate hereinbefore provided and any excess in the original calculation over such rate shall be and be treated for all purposes as a payment of capital. Partial payments shall be first applied against interest accrued. If any instalment of principal or the accrued interest payable contemporaneously therewith remains unpaid after the date on which it becomes due, the whole of the principal and accrued interest shall forthwith become due and payable at the option of the bank. In the event that the undersigned shall fail to make any of the payments above provided for, the undersigned promises to pay interest at the rate of 5 per cent per annum on the principal amount in default from the date of default until payment.

.....
.....

SCHEDULE "C"

(To be completed as of the last day of March, June, September and December)

.....

(Name of Bank)

.....

(Branch)

THE VETERANS' BUSINESS AND PROFESSIONAL LOANS ACT

For quarter ended 19....

Veterans' Business and Professional Loans Act—continued

Quarterly Report of New Loans

	Number	Amount
(1) Total loans made to date of last report		\$
(Item No. 3 of last report)		
(2) Plus loans made since last report as listed below		\$
(3) Total loans made to date		\$
(4) Less total repayments made to date		\$
(5) Total of loans outstanding		\$

Certified correct,
 Manager Accountant.

LOANS MADE SINCE LAST REPORT

*Application Number	Name of Borrower	Amount of Loan (Include cents)	Period of Loan	How Repayable	Purpose of Loan Briefly

* Applications covering loans made to be numbered consecutively from the commencement. Each advance under a loan to be reported under the original application number.
 List on reverse loans paid in full since last report showing application number, borrower's name and original amount of loan.

SCHEDULE "D"

(To be completed as of the last day of March, June, September and December)

.....
 (Name of Bank) (Branch)

THE VETERANS' BUSINESS AND PROFESSIONAL LOANS ACT

For quarter ended 19....

Quarterly Report of Loans in Default Over Sixty Days

	Number	Amount
(1) Total loans in default at date of last report		\$
(2) Total loans in default at this date as listed below		\$

Certified correct,
 Manager Accountant.

PA RTICULARS OF LOANS IN DEFAULT OVER SIXTY DAYS

Applica- tion Number	Name of Borrower	Original Amount of Loan	Present Amount	Payments in Arrears No. Amount	*Remarks
		Totals			

* Indicate whether payments due monthly, quarterly, etc., and steps being taken to collect amount in arrears.

Veterans' Business and Professional Loans Act—concluded**SCHEDULE "E"****PROOF OF CLAIM ON DEFAULTED LOAN**

From Loan Application No.
 (Name of Bank)

 (Branch)

 (Date)

 (Address)

To Minister of Finance,
 Ottawa, Ontario.

By virtue of the guarantee of His Majesty the King in the right of Canada under The Veterans' Business and Professional Loans Act, the undersigned hereby claims payment of the amount of loss sustained by the undersigned as a result of a guaranteed loan made to the above-named borrower, which loss is made up as follows:

- (1) Unpaid principal amount of loan\$
- (2) Uncollected taxed or taxable costs, etc., in accordance with Section 23
 (1) (c) of the Regulations, as per statement herewith\$
- (3) Legal fees, costs and disbursements in accordance with Section 23
 (1) (d) of the Regulations, as per statement herewith\$
- (4) Uncollected earned interest on \$...... calculated at the rate of 2½ per cent
 per annum from the day of 19....
 until the date this claim is approved for payment.

The undersigned submits herewith the following:

- (a) Statement showing the date(s) and original amount(s) of the note(s) held by the undersigned in respect of the said loan, and the dates and amounts of the payments of principal and interest, respectively, made to the undersigned by the borrower.
- (b) Statement showing particulars of any unrealized security or unsatisfied judgments in respect of the said loan.
- (c) Receipt(s) or paid cheque(s), as per statement herewith, furnished by the borrower evidencing that to the extent required by Regulation 6 the total cost as set out in Section (2) of the borrower's application for such loan, has been paid.

In the opinion of the undersigned officer of the bank the balance owing on the said loan is not recoverable from the borrower.

.....
 (Name of Bank)
 By.....
 Manager.

SCHEDULE "F"**RECEIPT IN FAVOUR OF MINISTER OF FINANCE**

..... 19....
 hereby acknowledges receipt of
 (Name of Bank)
 payment to it by the Minister of Finance of Canada pursuant to The Veterans' Business and Professional Loans Act, of the sum of (\$.....)
 dollars in respect of the loss sustained by the said bank as a result of a guaranteed loan made by the said bank to
 (Name of Borrower)
 pursuant to Application No.

.....
 (Name of Bank)
 By
 Manager.

 Branch.

VETERANS' ESTATES

See DEPARTMENT OF NATIONAL DEFENCE ACT (The Veterans Estates Regulations).

VETERANS INSURANCE ACT. (1944-45, c. 49)

See also RETURNED SOLDIERS' INSURANCE ACT.

The Veterans Insurance Regulations

P.C. 5232

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 14th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to section sixteen of The Veterans Insurance Act, chapter 49 of the Statutes of Canada, 1944-45, is pleased to order as follows:

1. The Veterans Insurance Regulations established by Order in Council P.C. 642 of 20th February 1948, as amended, are hereby revoked; and

2. The annexed regulations entitled "The Veterans Insurance Regulations" are hereby made and established in substitution for the regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE VETERANS INSURANCE REGULATIONS

1. These Regulations may be cited as "The Veterans Insurance Regulations."

2. In these Regulations, unless the context otherwise requires—

- (a) "Act" means The Veterans Insurance Act;
- (b) "Minister" means the Minister of Veterans Affairs;
- (c) "policy" means the document issued to the insured as evidence of a contract of insurance entered into with him under the Act;
- (d) "Superintendent of Veterans Insurance" and "Assistant Superintendent of Veterans Insurance" mean, respectively, the officer of the Department of Veterans Affairs so designated; and

any term or expression which is defined in the Act shall have the same meaning in these Regulations.

3. Every policy shall be in the form in the Schedule to these Regulations, subject to any endorsements thereon or attached thereto, and shall be signed by, or bear the facsimile or lithographed signature of, the Minister and be countersigned by the Superintendent of Veterans Insurance or the Assistant Superintendent of Veterans Insurance.

Veterans Insurance Act—continued

4. All moneys due under any policy shall be payable in the City of Ottawa in the Province of Ontario.

5. Premiums under any policy may be paid monthly, quarterly, semi-annually or annually, in advance, subject to the terms of the policy in that behalf. The quarterly premium, the semi-annual premium and the annual premium, shall, respectively, be three, six and twelve times the monthly premium. If, during any period for which the premium has been paid, the insured dies or the policy is surrendered for its cash value, there shall be refunded in the settlement of the policy the proportion of the premium paid for the said period corresponding to the unexpired portion thereof dating from the end of the calendar month in which the policy is terminated by death or surrender, as the case may be.

6. A foster-parent of the insured or foster-parent of the spouse of the insured may be designated as a contingent beneficiary for the purposes of section seven of the Act.

7. Where a person is insured—

- (a) under more than one policy under the Act but is not insured under The Returned Soldiers' Insurance Act, and as a consequence of the death of that person a pension becomes payable as described in section ten of the Act, or
- (b) under the Act and under The Returned Soldiers' Insurance Act, under two or more policies, and as a consequence of the death of that person a pension becomes payable as described in section ten of the Act and also as described in section ten of The Returned Soldiers' Insurance Act,

the deduction to be made in respect of that pension from the amount of insurance in any such policy shall equal the value of such a proportion of the pension as is equal to the ratio of the amount of insurance in that policy to the total amount of insurance in all of the policies.

8. There shall be maintained in accordance with directions of the Minister of Finance such accounts as he may deem appropriate of the moneys received and of the moneys paid under the provisions of the Act, including an account to be called The Veterans Insurance Account in the Consolidated Revenue Fund of Canada. Interest shall be added to the balance from time to time standing to the credit of the latter account at the rate of three and one-half per cent per annum; Provided that no interest shall be added on unclaimed amounts of insurance.

9. (1) The age, identity, existence or death of persons shall be proven by submitting such documents or other evidence as the Minister may require.

(2) When proof of age is furnished during the lifetime of the insured the age may be admitted by endorsement on the policy signed by the Superintendent of Veterans Insurance or the Assistant Superintendent of Veterans Insurance.

Veterans Insurance Act—continued

SCHEDULE

THE DOMINION OF CANADA

Age.....

No.....

This Policy Witnesseth that Pursuant to

THE VETERANS INSURANCE ACT

(8 Geo. VI, Chap. 49)

The Government of Canada hereby insures the life of

(hereinafter called the insured)

subject to the following terms, provisions and conditions:

Plan

Life—Premiums payable.....

Amount of insurance

..... Dollars.

When payable

Upon receipt of satisfactory proof of death of the insured and discharge of this contract.

How and to whom payable

(a) Payable at deathDollars as follows:
To of the insured,
..... Dollars.
To of the insured,
..... Dollars.

(b) Remainder of Dollars as follows:
To of the insured,
.....Dollars to be applied to purchase an annuity
To of the insured,
.....Dollars to be applied to purchase an annuity

Premium

.....Dollars and..... cents
payable on or before the date of this policy and thereafter a like amount
on the first day of.....in each year until payments
have been made for.....years, or until the previous
death of the insured.

Receipt of the first premium is hereby acknowledged.

Veterans Insurance Act—*continued*

This policy is issued in consideration of the application herefor and of the payment of the premiums as provided herein and is subject to the provisions and conditions hereinafter set forth including the endorsements hereon or attached hereto and to the provisions of the said Act and any amendments thereto and regulations made thereunder, as fully as if the same were written above the signatures hereto set.

Signed at the City of Ottawa, in the Province of Ontario, this.
..... day of 19....

*Superintendent of Veterans
Insurance*

Examined by

MILTON F. GREGG,
Minister of Veterans Affairs.

PROVISIONS AND CONDITIONS**1. Contract**

This policy is subject to the provisions of The Veterans Insurance Act, including any amendments thereto and regulations made thereunder, and, together with the application herefor and any endorsements hereon or attached hereto, constitutes the contract between the parties hereto.

2. Payment of premiums

All premiums are payable on or before their due dates to the Receiver General of Canada and may be sent to the Chief Treasury Officer of the Department of Veterans Affairs, Ottawa, Canada. Premiums may be paid monthly, quarterly, semi-annually or annually in advance but to effect a change in the frequency of premium payment, written request therefor must be made to the Superintendent of Veterans Insurance, Ottawa. Except as expressly provided herein, the payment of a premium shall not maintain the policy in force beyond the due date of the next premium.

3. Grace

A grace period of one month shall be allowed for the payment of any premium after the first, without interest charge, during which period the policy shall continue in force, but if the insured dies during such period, the premium, if then unpaid, shall be deducted from the insurance money payable hereunder.

4. Age

For the purpose of determining the premium payable hereunder, the age of the insured shall be taken at the birthday of the insured nearest to the date of this policy. Proof of age satisfactory to the Minister shall be furnished before any payment of insurance money is made hereunder. If the age of the insured has been understated, the amount of insurance and every benefit provided hereunder shall be such as the premium paid would have purchased at the correct age. If the age has been overstated, the excess premiums paid shall be refunded.

Veterans Insurance Act—continued

5. Incontestability

The statements made by the insured in the application for this policy shall, except in the case of fraud or error of age, be accepted as true and incontestable after the policy has been in force, during the lifetime of the insured, for a period of one year from the date hereof. All statements made in the said application shall, in the absence of fraud, be deemed representations and not warranties.

6. Residence, travel and occupation

This policy is free of all restrictions as to residence, travel and occupation, including military, naval and air service.

7. Change of (a) beneficiary, (b) apportionment and (c) mode of payment of insurance money

The insured may at any time change the beneficiary or beneficiaries, or the contingent beneficiary or contingent beneficiaries, theretofore designated, or the apportionment of the insurance money among them, or the mode of payment of the insurance money, all in conformity with the provisions of The Veterans Insurance Act in that behalf. (See the fourth page hereof.)

Any change as aforesaid shall be made by declaration of the insured in duplicate on forms to be supplied by the Superintendent of Veterans Insurance on request. (Both copies of the declaration shall be returned to the said Superintendent, together with this policy for endorsement, after which the policy will be returned to the insured.) Provided, however, that after the death of the insured the Minister may accept any instrument, writing or document appearing to him to be a *bona fide* expression of intention of the insured to effect a change as aforesaid, in which event payment in accordance therewith shall be in full and final settlement of all liability under this policy.

8. Self-destruction

In the event of the self-destruction of the insured, whether sane or insane, within one year after the date hereof, this policy shall be void and no part of the amount of insurance shall be paid but there shall nevertheless be returned to the beneficiary or beneficiaries, in proportion to their interests hereunder, the premiums actually paid, without interest.

9. Disability benefit

If, before attaining the age of sixty years and before default in the payment of any premium hereunder (or, in the event of default, not later than the end of the period of grace), the insured becomes totally and permanently disabled so that he is thereby rendered incapable of pursuing any substantially gainful occupation, and if such disability is not deemed to be attributable to his service to such an extent as to entitle him to pension on the grounds of total disability under the Pension Act, the premiums thereafter falling due under this policy, during the continuance of such disability, shall be waived; provided, however, that premiums shall not be waived where such disability commenced prior to the date of the policy. The insurance money payable under any settlement of this policy shall not be reduced because of any premiums waived under this provision.

Veterans Insurance Act—continued**10. Proof of disability**

Proof of disability shall be furnished to the satisfaction of the Minister before any premium will be waived hereunder. If the insured makes application for the disability benefit, he shall be examined by such physician as may be named for that purpose by the Minister. (The fee of the physician shall be paid by the insured.) If the physician is satisfied that the insured is totally disabled and incapable of pursuing continuously any substantially gainful occupation, and that it is unlikely that he will at any time recover in whole or in part from such disability and incapacity, he shall so certify. Notwithstanding such certification, however, the Minister may submit the report for review to the Director of Medical Services of the Department of Veterans Affairs or to such other medical adviser as may be named by the Minister for that purpose, and he may require the insured to be examined by another physician; and in determining whether proof of disability as aforesaid has been established, the Minister shall take into account not only the said report or reports but all other information available to him.

Notwithstanding that proof of total and permanent disability may have been accepted by the Minister, he may at any time require proof of the continuance of such disability to be established, and if such proof is not furnished to the satisfaction of the Minister, all premiums thereafter falling due shall be payable by the insured.

11. Cash surrender value

At any time after this policy has been in force for two years (premiums having been paid for at least two full years), the insured may, with the consent of the beneficiary or beneficiaries hereunder and upon written application to the Superintendent of Veterans Insurance, surrender the policy for its cash value, which value within three months after the due date of the first premium in default, if any, shall be the reserve on the policy as at the said date, and at all other times shall be the reserve as at the date of surrender. Payment of the said cash value shall be in full and final settlement of all liability hereunder. Specimen cash values in accordance with this provision are shown in the table below.

12. Reduced paid-up insurance

At any time after this policy has been in force for two years (premiums having been paid for at least two full years) but not later than three months after the due date of the first premium in default, if any, the insured may, upon written application and upon return of this policy for endorsement, be granted paid-up insurance for a reduced amount, which amount shall be such as the reserve on the policy as at the end of the period for which premiums have been paid will provide when applied as a net single premium at the then attained age of the insured. Specimen paid-up insurance values in accordance with this provision are shown in the table below.

13. Automatic extended term insurance

If, after this policy has been in force for two years (premiums having been paid for at least two full years), any premium due hereunder is not paid within the period of grace, the full amount of insurance shall, unless the cash surrender value or reduced paid-up insurance has been applied for under Provision 11 or 12, be automatically continued for such a period (disregarding fractional parts of a month) as the reserve on the policy as

Veterans Insurance Act—continued

at the date on which the said premium fell due will provide when applied as a net single premium at the then attained age of the insured. Subject to Provision 14 hereof, all rights and liabilities under the policy shall terminate upon the expiration of the period herein provided for. Specimen periods of extended term insurance in accordance with this provision are shown in the table below.

TABLE OF GUARANTEED VALUES
in accordance with Provisions 11, 12 and 13

[illegible]

The values shown in the above table are mathematically equivalent to the full net premium reserves on the bases of the British Offices Life Tables, Om (5), and interest at the rate of $3\frac{1}{2}\%$ per annum.

The cash values and paid-up insurance values in the table are for an amount of insurance of \$1,000 and apply pro rata to the amount of insurance stated on the first page hereof; the periods of extended term insurance remain the same for all amounts of insurance.

The values shown are those available at the end of the policy years indicated; values available during a policy year or for subsequent years will be computed on the same bases and will be furnished on request.

Veterans Insurance Act—continued**14. Reinstatement**

If any premium due hereunder is not paid within the period of grace, and if the cash surrender value or reduced paid-up insurance has not been granted, the insured may, with the consent of the Minister and subject to such evidence of insurability as the Minister may require, reinstate the policy in full force at any time within five years from the due date of the first premium in default by payment of the arrears of premiums with interest at the rate of five per cent per annum compounded annually.

15. Policy unassignable

The insurance money payable under this policy shall be unassignable and shall not be subject to the claims of creditors of the insured or of the beneficiary. Any attempted dealing with such money by pledge, assignment or otherwise will be disregarded as null and void.

16. Deduction on account of pensions

Where, on the death of the insured, a pension becomes payable under the Pension Act or any pension law of the United Kingdom or of any of His Majesty's Dominions, to any person mentioned in subsections one or two of section six or in subsection one of section seven of The Veterans Insurance Act (see the fourth page hereof), there shall be deducted from the amount of insurance the aggregate present value of the pension or pensions so payable, and in lieu of the said deduction there shall be paid to the beneficiary or beneficiaries, in proportion to their interests under this policy, the amount of the paid-up insurance which would have been available under this policy in the event of the grant of paid-up insurance within the lifetime of the insured as at the end of the period for which premiums have been paid, reduced in the ratio of the amount of the said deduction to the amount of insurance. Provided, however, that

- (a) for the purposes of this provision, where the insured dies before premiums have been paid for two years or during the period of automatic extended term insurance, the amount of paid-up insurance deemed to have been available shall be such as the reserve on the policy, computed as at the date of death of the insured on the bases used in computing paid-up insurance values hereunder, will provide when applied as a net single premium on the said bases at the then attained age of the insured:
- (b) where the contract is for the benefit of the spouse or children of the insured or of some one or more of such persons, and the insured dies after six months from the date of the policy, no deduction shall be made where the amount of insurance does not exceed five hundred dollars, and where the said amount does exceed five hundred dollars the deduction shall not be greater than such excess:
- (c) this provision shall be inoperative where the beneficiary is the spouse of the insured and the pension is awarded under the Pension Act to some person or persons other than the spouse.

Veterans Insurance Act—continued

The present value of the pensions payable shall be computed on the bases of the Canadian Life Tables No. 2 (1941) male or female, according to the sex of the pensioner, together with interest at the rate of three and one-half per cent per annum, and, in the case of a pension to a spinster or widow, such probabilities of marriage or remarriage, as the case may be, as the Minister may consider appropriate.

17. Payment of insurance money

The amount of insurance provided hereunder shall become payable in the manner stated on the first page hereof upon receipt of satisfactory proof of the death of the insured and upon discharge of this contract. The total payments to be made at death under this policy and all other policies, if any, issued to the insured and in force under The Veterans Insurance Act shall not exceed the total amount of insurance stated therein, or one thousand dollars, whichever is the lesser. The remainder, if any, of the insurance money, or the portion thereof to which any beneficiary is entitled, shall be payable in instalments as an annuity; provided, however, that where the insurance money remaining to be paid as an annuity to any beneficiary is less than five hundred dollars, the Minister may, upon the request of the said beneficiary, direct that such money shall be paid in such manner and in such amounts, including payment in a lump sum, as the Minister may consider appropriate.

The mode of payment of the insurance money stated on the first page hereof is that elected by the insured in his application but may be varied by declaration of the insured in the manner set out in Provision 7 hereof, or may after the death of the insured be varied by the beneficiary with the consent of the Minister. Alternative modes of payment of insurance money as an annuity are shown in Tables A and B below. Annuities may be made payable quarterly, semi-annually or annually, commencing three, six or twelve months after the date of death of the insured. Annuities payable annually are shown in Table B but the corresponding annuities payable quarterly or semi-annually will be computed according to the same bases and principles and will be furnished on request to the Superintendent of Veterans Insurance.

TABLE A

Payment to beneficiary which \$1,000 of insurance money will purchase as an annuity certain for the terms shown below. Payments for an amount of insurance money greater or smaller than \$1,000 will be proportionate.

Frequency of Payment	Term			
	5 years	10 years	15 years	20 years
Quarterly.....	54.66	29.67	21.43	17.36
Semi-annually.....	109.79	59.60	43.04	34.88
Annually.....	221.48	120.24	86.83	70.36

Veterans Insurance Act—*continued*

TABLE B

Annual payment to beneficiary which \$1,000 of insurance money will purchase as a life annuity or as a life annuity guaranteed for the terms shown below and as long thereafter as the beneficiary may live. Payments for an amount of insurance money greater or smaller than \$1,000 will be proportionate.

Age of beneficiary as at birthday nearest to date of death of insured		Annual payment as an annuity for life	Annual payment as an annuity for life, guaranteed for			
Male	Female		5 years	10 years	15 years	20 years
	5	39.71	39.69	39.63	39.55	39.46
	6	39.85	39.83	39.77	39.69	39.60
	7	40.00	39.97	39.91	39.83	39.74
	8	40.15	40.12	40.06	39.98	39.88
	9	40.31	40.28	40.22	40.14	40.04
5	10	40.47	40.44	40.38	40.30	40.20
6	11	40.64	40.61	40.55	40.47	40.36
7	12	40.82	40.79	40.73	40.64	40.54
8	13	41.00	40.97	40.91	40.82	40.72
9	14	41.20	41.17	41.10	41.02	40.91
10	15	41.40	41.37	41.31	41.22	41.10
11	16	41.61	41.58	41.52	41.42	41.31
12	17	41.83	41.80	41.74	41.64	41.52
13	18	42.07	42.04	41.97	41.87	41.75
14	19	42.31	42.28	42.21	42.11	41.98
15	20	42.57	42.53	42.46	42.36	42.22
16	21	42.83	42.80	42.73	42.62	42.47
17	22	43.11	43.08	43.01	42.89	42.74
18	23	43.41	43.38	43.30	43.18	43.01
19	24	43.72	43.68	43.60	43.47	43.30
20	25	44.04	44.01	43.92	43.78	43.60
21	26	44.38	44.35	44.25	44.11	43.90
22	27	44.74	44.70	44.60	44.45	44.23
23	28	45.11	45.07	44.97	44.80	44.56
24	29	45.51	45.46	45.35	45.17	44.91
25	30	45.92	45.87	45.75	45.55	45.27
26	31	46.35	46.30	46.17	45.95	45.64
27	32	46.80	46.75	46.60	46.36	46.03
28	33	47.27	47.21	47.06	46.80	46.43
29	34	47.77	47.70	47.53	47.25	46.84
30	35	48.29	48.22	48.03	47.72	47.27
31	36	48.83	48.76	48.55	48.20	47.72
32	37	49.40	49.32	49.09	48.71	48.18
33	38	50.00	49.91	49.65	49.24	48.65
34	39	50.62	50.52	50.24	49.78	49.14
35	40	51.28	51.16	50.86	50.35	49.64
36	41	51.96	51.84	51.50	50.94	50.16
37	42	52.68	52.54	52.16	51.55	50.70
38	43	53.43	53.28	52.86	52.18	51.25
39	44	54.22	54.05	53.59	52.84	51.81
40	45	55.05	54.86	54.35	53.52	52.39
41	46	55.92	55.70	55.14	54.22	52.98
42	47	56.83	56.59	55.96	54.95	53.59
43	48	57.79	57.52	56.82	55.70	54.21
44	49	58.79	58.50	57.72	56.48	54.84

Veterans Insurance Act—continued

TABLE B—Concluded

Age of beneficiary as at birthday nearest to date of death of insured		Annual payment as an annuity for life	Annual payment as an annuity for life, guaranteed for			
Male	Female		5 years	10 years	15 years	20 years
45	50	59.85	59.52	58.65	57.28	55.48
46	51	60.96	60.59	59.62	58.11	56.13
47	52	62.13	61.71	60.64	58.96	56.79
48	53	63.35	62.89	61.69	59.84	57.46
49	54	64.65	64.13	62.79	60.74	58.13
50	55	66.01	65.43	63.94	61.66	58.81
51	56	67.45	66.80	65.13	62.61	59.49
52	57	68.97	68.23	66.36	63.58	60.17
53	58	70.57	69.74	67.65	64.56	60.84
54	59	72.25	71.32	68.98	65.57	61.51
55	60	74.04	72.98	70.36	66.58	62.17
56	61	75.92	74.73	71.79	67.62	62.82
57	62	77.91	76.57	73.27	68.66	63.45
58	63	80.02	78.49	74.80	69.71	64.07
59	64	82.25	80.52	76.38	70.76	64.67
60	65	84.62	82.65	78.00	71.81	65.24
61	66	87.12	84.89	79.67	72.85	65.79
62	67	89.78	87.23	81.37	73.89	66.31
63	68	92.60	89.70	83.12	74.91	66.79
64	69	95.59	92.28	84.90	75.91	67.25
65	70	98.78	94.99	86.72	76.88	67.67
66	71	102.16	97.83	88.56	77.83	68.06
67	72	105.77	100.81	90.41	78.74	68.41
68	73	109.60	103.92	92.23	79.61	68.72
69	74	113.70	107.17	94.15	80.44	69.01
70	75	118.06	110.56	96.02	81.21	69.25
71	76	122.72	114.10	97.87	81.94	69.47
72	77	127.69	117.78	99.70	82.61	69.65
73	78	133.01	121.59	101.49	83.23	69.80
74	79	138.71	125.55	103.24	83.78	69.93
75	80	144.80	129.64	104.93	84.28	70.04
76	81	151.34	133.85	106.56	84.73	70.12
77	82	158.36	138.18	108.11	85.12	70.19
78	83	165.89	142.61	109.58	85.45	70.24
79	84	173.99	147.13	110.95	85.74	70.28
80	85	182.71	151.72	112.23	85.98	70.31
81		192.09	156.35	113.40	86.18	70.33
82		202.22	161.01	114.46	86.35	70.34
83		213.16	165.67	115.42	86.48	70.35
84		224.98	170.30	116.28	86.59	70.36
85		237.77	174.88	117.03	86.66	70.36

Veterans Insurance Act—continuedEXTRACTS FROM THE VETERANS INSURANCE ACT
(See Provisions 7 and 16 of this policy)*Spouse and children as beneficiaries*

6. (1) Where the insured is married, or is a widow or a widower or divorced or unmarried and with children, the beneficiary shall be the spouse, or children of the insured, or some one or more of such persons.

Future spouse and children as beneficiaries

(2) Where the insured is unmarried, or is a widow or a widower or divorced, and without children, the beneficiary shall be the future spouse, or the future spouse and children, of the insured.

Apportionment of insurance money

(3) Where the insured designates more than one beneficiary, the insured may apportion, and may at any time reapportion, the insurance money between or among them as he sees fit, and in default of any such apportionment the insurance money shall be paid to the designated beneficiaries surviving the insured in equal shares.

In case of death of beneficiary, right to new designation

(4) Where a designated beneficiary dies in the lifetime of the insured, the insured may, subject to the provisions of subsections one and two of this section, designate a beneficiary or beneficiaries to whom the share formerly apportioned to the deceased beneficiary shall be paid, and in default of any such designation, the said share shall be divided equally among the surviving designated beneficiaries, if any.

If no designated beneficiary

(5) Where the insured does not designate a beneficiary, or where all of the beneficiaries designated by him die within his lifetime, the insurance money shall be paid to the spouse and the children of the insured in equal shares, and if the insured survives the spouse and all the children of the insured, and there is no contingent beneficiary within the meaning of the next following section surviving the insured, the insurance money shall, subject to section eleven of this Act, fall into and become part of the estate of the insured.

Designation of contingent beneficiaries

7. (1) The insured may designate as a contingent beneficiary a grandchild, parent, brother, or sister of the insured, or such other person as may by regulation be prescribed for the purposes of this section, to whom the insurance money or any portion thereof shall be paid in the event that the insured at the time of his death is unmarried or is a widow or a widower or divorced, and without children.

When insurance to estate

(2) Where the insured survives the spouse and all the children of the insured, the insurance money shall be paid to the contingent beneficiary or beneficiaries, if any, but in default of the designation of a contingent beneficiary, or in the event of the death of all the contingent beneficiaries within the lifetime of the insured, the insurance money shall, subject to section eleven of this Act, fall into and become part of the estate of the insured.

Veterans Insurance Act—concluded

Apportionment if more than one contingent beneficiary designated

(3) Where the insured designates more than one contingent beneficiary, the insured may apportion, and may at any time, reapportion, the insurance money among them as he sees fit, and in default of any such apportionment the insurance money shall be paid to the contingent beneficiaries surviving the insured in equal shares.

Death of designated beneficiary

(4) Where a contingent beneficiary dies in the lifetime of the insured, the insured may, subject to the provisions of subsection one of this section, designate a contingent beneficiary or beneficiaries to whom the share formerly apportioned to the deceased contingent beneficiary shall be paid, and in default of any such designation, the said share shall be divided equally among the contingent beneficiaries, if any, surviving the insured.

Reserve only to Estate

11. (1) Where, under this Act, the insurance money falls into and becomes part of the estate of the insured, such estate shall be entitled to receive only the reserve under the contract at the time of the death of the insured.

"Reserve" defined

(2) In this section the word "reserve" means the net premium value of the contract on the basis of the British Offices Life Tables, Om (5), with interest at the rate of three and one-half per centum per annum.

VETERANS' LAND ACT, 1942 (1942-43, c. 33)

See also SOLDIER SETTLEMENT ACT

The Veterans' Land Act Regulations

P.C. 5245

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the provisions of The Veterans' Land Act, 1942, is pleased to order as follows:

1. The Regulations and Special Orders made under The Veterans' Land Act, 1942, by Order in Council P.C. 218 of 30th January, 1948, as amended, are hereby revoked; and

2. The annexed regulations entitled "The Veterans' Land Act Regulations" are hereby made and established in substitution for the Regulations and Special Orders hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

Veterans' Land Act—continued

THE VETERANS' LAND ACT REGULATIONS

1. In these Regulations, unless the context otherwise requires:—

- (a) "Act" means The Veterans' Land Act, 1942 and amendments thereto;
- (b) "Director" means the Director, The Veterans' Land Act;
- (c) "Minister" means the Minister of Veterans Affairs;
- (d) "Provincial Advisory Board" means a provincial advisory board appointed pursuant to section sixteen of the Act;
- (e) "Regional Advisory Committee" means a regional advisory committee appointed pursuant to section thirty-four of the Act.

ADMINISTRATION

2. The office of the Director shall be at the City of Ottawa.

District Superintendent

3. (1) The Director may, with the approval of the Minister, establish one or more central administrative offices in each province. Each of such offices shall be under the supervision of a District Superintendent.

Regional Supervisor

(2) In addition to such central administrative offices the Director may with the approval of the Minister establish regional offices in each province. Each regional office shall be under the supervision of a Regional Supervisor.

Regional Advisory Committee

4. (1) A Regional Advisory Committee shall consist of three or more members of whom one shall be the Regional Supervisor or other officer or employee of the Director named by the Governor in Council to act as Chairman in the absence of the Regional Supervisor. The Chairman and one other member of the Advisory Committee shall constitute a quorum. The Chairman shall receive no salary or remuneration other than that which he receives as Regional Supervisor or as an officer or employee of the Director. The remaining members shall hold office during pleasure and shall each be paid a salary of \$10 per diem for each day on which the committee meets and for each day or portion of a day necessarily engaged in travelling to and from committee meetings, and shall also be entitled to receive and be paid their actual disbursements for expenses necessarily incurred by them in connection with the discharge of their duties.

(2) The Chairman named by the Governor in Council as Chairman of a Regional Advisory Committee may, on the authority of the Director, act as the Chairman of any other Regional Advisory Committee within that Province.

APPLICATION FOR QUALIFICATION

Application Form

5. (1) A veteran desiring to be certified to be qualified to participate in the benefits of the Act shall submit to the Director through the nearest office of the Director an application in writing, in such form and containing such information as the Director may from time to time determine.

Veterans Land Act—continued

Western Hemisphere

(2) In determining eligibility of veterans with service in the Western Hemisphere only, three hundred and sixty-five days' active service shall constitute twelve months' active service under section 2 (d) (ii) of the Act.

(3) Time spent by a veteran in professional training in the faculty of medicine or dentistry in any university or in any hospital prior to appointment to a unit as a commissioned officer, pursuant to Canadian Army Routine Orders No. 3202 and 3343, as amended, shall not be counted as active service under the Act.

Cessation of Entitlement to Benefits

5A. (1) No veteran shall be eligible for benefits under the Act in respect of service in the naval, military or air forces of His Majesty subsequent to

- (a) the day of his acceptance as a member of the permanent naval or military forces or the regular air forces of Canada if he was so accepted after the thirty-first day of March, 1946;
- (b) the thirty-first day of March, 1946, if on that day he was a member of the permanent naval or military forces or the regular air forces of Canada serving on active service;
- (c) the thirty-first day of March, 1946, if he volunteered and was accepted for service in the naval, military or air forces of Canada for a special period terminating on or after the thirtieth day of September, 1947, unless he was serving on overseas service on the thirty-first day of August, 1945, and remained continuously on the strength of an establishment or unit or ship on overseas service, in which case he shall be eligible for benefits in respect of all such service.

(2) Any veteran eligible for benefits under the Act shall be eligible for benefits in respect of all his full-time service, if he was not accepted as a member of the permanent naval or military forces or the regular air forces of Canada, or was not accepted for service in the naval, military or air forces of Canada for a special period terminating on or after the thirtieth day of September, 1947.

(3) For the purposes of subsection (1) of this regulation the expression "overseas service" shall have the same effect as that expression has in The War Service Grants Act, 1944.

Personal Interview

6. An application submitted as aforesaid shall be referred to a Regional Advisory Committee for consideration and the veteran (and his wife if so required) shall personally appear before such Regional Advisory Committee for oral examination.

Qualifications of Veterans

7. The veteran shall submit reasonable evidence that he is personally fit and able to carry on the occupation by which he proposes to gain his livelihood; that, by reason of his character, habits, knowledge and experience, he is adapted to carry on successfully such occupation; that he understands the financial responsibility required by the Act; and that in all other respects including availability of initial capital requirements he is qualified to participate in the benefits of the Act.

Veterans Land Act—continued*Other Evidence*

8. The Regional Advisory Committee may consider such other evidence as it sees fit.

Recommendation

9. (1) When in the opinion of a Regional Advisory Committee a veteran is qualified to participate in the benefits of the Act, it shall so recommend to the District Superintendent and indicate the type of establishment for which qualified. When in the opinion of a Regional Advisory Committee the veteran is not qualified, it shall so recommend to the District Superintendent, stating the reasons therefor, or stating the conditions under which a recommendation for qualification will be reconsidered.

(2) The Director may upon the recommendation of a District Superintendent authorize any Regional Supervisor to receive the recommendations of a Regional Advisory Committee and to act thereon in the place and stead of a District Superintendent.

Two Years' Farming Experience

10. Where a veteran intends to carry on full-time farming operations, no qualification certificate shall be granted unless he has had at least two years' satisfactory farming experience prior to the date of his application.

Qualification Certificate

11. A veteran who has been found qualified to participate in the benefits of the Act may be granted a qualification certificate, in the form prescribed by the Director, indicating the province or district to which it applies and the type of settlement to which it relates.

Husband and Wife

12. If a husband and wife are both qualified to participate in the benefits of the Act, a certificate of qualification may be granted only to one of them, except where evidence of legal separation has been submitted and the Director is satisfied that such separation is not the result of collusion or understanding between the veteran and his wife with a view to obtaining any benefits under the Act.

APPLICATION FOR ASSISTANCE

Application Form

13. Application for assistance under the Act may be made by a veteran to whom a qualification certificate has been granted and shall be made in writing in a form prescribed by the Director to the office of the Director nearest the land in respect of which the assistance is sought. Such application shall be supported by the full cash deposit required under the Act.

Personal Interview

14. Where an application for assistance is made, the Regional Advisory Committee for the district in which the land concerned is situated may require that the veteran and his wife appear in person before it, notwithstanding that such veteran and his wife may already have appeared before a different Regional Advisory Committee for examination.

Veterans Land Act—continued

Applicant to Inspect Land

15. Every applicant for assistance who desires to purchase land under the Act shall complete a declaration in writing that he has personally inspected the land with respect to which the application is made at a time when such land was free of snow, that he made a thorough examination and that he is satisfied that such land is suitable for the purpose for which it is intended to be used.

Recommendation

16. The Regional Advisory Committee shall consider each application for assistance and if, in its opinion, the assistance applied for is not intended for purposes authorized by the Act, or the land in respect of which the assistance is sought is unsuitable for settlement purposes, it shall recommend to the District Superintendent that such application be declined.

Inspection and Appraisal

17. If, after having considered an application for assistance, the Regional Advisory Committee is of opinion that the assistance applied for is intended for purposes authorized by the Act, and that the land in respect of which the assistance is sought is suitable for settlement purposes, it shall, if a duly authorized appraisal has not already been made, direct that an inspection and appraisal of the lands referred to in such application shall be made. Such inspection and appraisal shall be made by a person who is authorized by the Director to make such inspection and appraisal.

Recommendation

18. After the inspection and appraisal referred to in regulation 17 has been made, the Regional Advisory Committee shall consider the application for assistance, taking into account the report of such inspection and appraisal, and the suitability of the land referred to for the settlement of the veteran concerned, and shall make a recommendation to the District Superintendent as to whether, in its opinion, the application should be approved or declined, together with such other recommendations as it may see fit to make. Such recommendation shall be accompanied by the application form, the report of inspection and appraisal, together with all relevant documents.

APPROVAL OF APPLICATION

Approval

19. (1) The approval of purchase or sale of property authorized by sections seven and nine of the Act and the approval of construction authorized by section seven A of the Act shall be made in writing in the form prescribed by the Director over the signature of the District Superintendent or by an officer duly authorized by the Director to act for the District Superintendent. Such approval shall specify the amounts approved and the purposes for which approved.

Disbursements of funds approved hereunder may be requisitioned in writing by the District Superintendent or an officer duly authorized by the Director to act for the District Superintendent; and without limiting the foregoing such requisition may be made:

- (a) in respect of land and permanent improvements by the District Solicitor;

Veterans Land Act—continued

- (b) in respect of construction under section seven A of the Act by the District Construction Supervisor for progress and final payments;
 - (c) in respect of building materials, farm live stock and equipment or commercial fishing equipment by invoice or purchasing order signed by a Regional or Field Supervisor.
- (2) In the case of an approval of sale to a veteran the approval shall specify the terms of repayment.

Establishment of Land Value—Section Thirteen

20. In establishing the value of land for the purposes of section thirteen of the Act, the Director may take into account the value which permanent improvements to be effected under the said section may add to the value of the land.

Standard Dates for Repayment

21. The standard dates for payment or repayment shall be:

- (a) The first day of November in each year in the case of annual instalments;
- (b) the first days of May and November in each year in the case of semi-annual instalments; and
- (c) The first or the fifteenth day of each month, as may be determined by the Director, in the case of monthly instalments.

CONDITIONS RESPECTING ASSISTANCE

Execution of Documents

22. No assistance shall be provided under the Act except under the supervision of the Director or a duly authorized officer acting for him, and unless the veteran has executed such documents as may be required by the Act or by the Director.

Minimum Area

22A. (1) The approval of financial assistance for the establishment of a veteran in part-time farming shall be confined to a minimum of two acres of land where the cost of such land and a suitable supply of water is in excess of the rate of five hundred dollars per acre, and to a minimum of three acres of land where the cost price of such land and a suitable supply of water is at the rate of five hundred dollars per acre or less, provided that the Director may, at his discretion, reduce these minimum acreages by not more than twenty per centum (20%) to meet variations in local conditions.

(2) The provisos contained in subsection (1) may not apply:

- (a) In cases where commitments made by the Director prior to the twelfth day of September, 1946, do not come within the minimum acreages;
- (b) To qualified veteran applicants in receipt of a disability pension of fifty per centum (50%) or more;
- (c) To commercial fishing establishments;

Veterans Land Act—continued

- (d) In cases where a veteran, on his own responsibility, prior to the twelfth day of September, 1946, acquired clear title to, made payment on account of, or entered into an agreement enforceable by the vendor to purchase a property with the intention of making application at a later date for financial assistance authorized by The Veterans' Land Act, 1942; provided the Director is satisfied that such purchase or commitment was made in good faith;
- (e) To lots of less than two acres in area previously sold in lands subdivided by the Director for the establishment of a veteran community.

Cancellation of Approval

23. The Director may for cause cancel an approval for assistance at any time before the assistance approved, or any part thereof, has been provided.

Livestock and Farm Equipment

24. No sales of or advances for live stock and equipment shall be made by the Director to a veteran for which there is not a reasonable need.

Household Equipment

25. Farm equipment under the Act may include essential household equipment up to a maximum cost of two hundred and fifty dollars.

Tree and Bush Fruits

26. Assistance or advances for tree and bush fruit nursery stock, and seeds and roots of hardy perennials to be planted for commercial purposes, shall be expended as permanent improvement assistance or advances, but in the discretion of the Director assistance under subsection one of section nine of the Act for this purpose may be authorized as farm equipment up to a maximum cost of one hundred and fifty dollars to the Director.

Automobiles, Electric Fixtures and Equipment

27. No advances shall be made and no contracts shall be entered into for the purchase or sale of automobiles, motor vehicles, bicycles, or their component parts, or for electric fixtures or equipment other than electric stoves, refrigerators, washing machines, sewing machines, water pumps, water pressure systems, electric motors to operate and/or electrically operated machines required for the propagating, processing and preparing of farm products, and essential electric wiring and installations.

Commercial Fishing Equipment

28. A contract for the sale of commercial fishing equipment may include seaworthy boats of such size and construction as may be approved by the Director, fishing nets, floats, weights, anchors, internal combustion motors, sails, blocks and tackle, necessary cable and cordage, navigating equipment, and galley stoves.

Joint Enterprise

29. Commercial fishing equipment for use in one commercial fishing enterprise may not be sold on a joint basis to more than two veterans.

Veterans Land Act—continued**CONDITIONS RESPECTING BUILDINGS AND RESIDENCE***Erection of Buildings*

30. Except with the consent of the Director, no additional buildings may be erected by a veteran and no alterations may be made to existing buildings on any land which the veteran has contracted to purchase from the Director.

Actual Residence Required

31. A veteran shall immediately commence actual residence upon the land which the Director has contracted to sell to him, and shall reside thereon during the continuance of the agreement, but with the approval of the Director actual residence upon such lands may be temporarily discontinued.

RESCISSION OF AGREEMENTS*Notice of Reference to Provincial Advisory Board*

32. (1) Before the question of rescission is referred to a Provincial Advisory Board, pursuant to the provisions of section sixteen of the Act, the veteran shall be given not less than fifteen days' notice of the Director's intention so to do. Such notice shall specify the defaults upon which the Director relies, and shall state the time and place of the hearing.

(2) Such notice shall be in writing over the signature of the Director or a duly authorized officer acting for him, and shall be deemed duly given if mailed in any post office by registered mail addressed to the veteran at the address stated in the agreement for sale or at his last address known to the Director.

(3) Where the veteran is deceased, such notice shall be deemed duly given if mailed in any post office by registered mail, addressed to any person or persons upon whom the rights of such veteran devolve pursuant to section twenty-eight of the Act, at his or their last address known to the Director; or, if the address of such person or persons is unknown to the Director, then such registered letter may be addressed generally to the heirs, devisees or personal representative, without describing them by name, at the last address of the deceased known to the Director, or, in the discretion of the Director, by publishing such notice by a single insertion in one of the newspapers circulating in the district in which the land is situate, fifteen clear days before the date appointed for consideration of the case by the Provincial Advisory Board.

(4) In the case of an insane veteran, such notice shall be deemed duly given if mailed at any post office by registered mail addressed to the provincial Administrator of the Estates of Mentally Incompetent or the legal representative or committee of such insane veteran.

Hearing

(5) If the veteran or a representative of the veteran fails to appear to make representations, the Advisory Board shall hear the application of the Director *ex parte*.

Decision of Advisory Board

(6) The consent to the rescission of an agreement for sale, or the remedial conditions to be fulfilled by the veteran in default of compliance with which rescission of the agreement may ensue, shall be given to the Director by the Advisory Board in writing. The decision of the majority of its members shall be binding on the Board.

Veterans Lands Act—continued

Notice of Intention to Rescind

33. If the Advisory Board consents to the rescission of any agreement for sale, the notice of intention to rescind shall be deemed duly given if served in accordance with the provisions of regulation 32 thirty clear days before the Director acts thereunder.

When Notice not Required

34. No notice shall be necessary before rescission in any case where a quit claim deed, conveyance or transfer to the Director is executed by the veteran, or by duly appointed legal representative or committee in the case of a deceased or insane veteran.

MISCELLANEOUS

Sales to Non-Veterans

35. The interest rate chargeable on sales to any persons other than a veteran shall be the interest rate charged by the Canadian Farm Loan Board at the date of such sale.

Delegation of Signing Authority

36. All documents which require execution by the Director in his corporate capacity may be signed for the Director by an officer authorized by the Director to sign for the Director, and the Director's seal shall be affixed thereto and the signature duly witnessed.

INDIAN VETERANS

Indian Veterans

37. (1) Notwithstanding anything in these Regulations, an Indian veteran desiring to be certified to be qualified to participate in the benefits of section thirty-five A of the Act shall submit to any officer of the Indian Affairs Branch, Department of Mines and Resources, designated by the Minister of Mines and Resources, an application in writing in such form and containing such information as the Director may from time to time determine.

(2) The Indian veteran shall submit reasonable evidence that he is personally fit and able to carry on the occupation by which he proposes to gain his livelihood and that by reason of his character, habits, knowledge and experience, he is adapted to carry on successfully such occupation.

(3) Before approving any grant, the Director shall be furnished by the Minister of Mines and Resources, or by an authorized officer acting for him, in a form prescribed by the Director

- (a) a certificate respecting the military service eligibility of the Indian applicant;
- (b) a certificate that the Indian applicant is qualified to engage in the occupation which he proposes to follow;
- (c) a certificate that the land to be used or occupied by the Indian veteran is suitable for such use or occupation;

Veterans Land Act—continued

- (d) a recommendation as to the amount of the grant which should be approved and the several purposes for which such grant should be expended.
- (4) A grant to an Indian veteran for the purchase of household equipment shall not exceed two hundred and fifty dollars, and for the purchase of equipment for trapping or fur farming shall not exceed eight hundred and fifty dollars.

PROVINCIAL LANDS

Provincial Lands

38. (1) Any grant to a veteran under section thirty-five of the Act may be made by the purchase and delivery by the Director to him of specified chattels, conditional upon the veteran complying for a period of ten consecutive years with the terms of his agreement for the purchase, lease, use or grant of the provincial lands on which he settles.

(2) The veteran shall covenant and agree that on default of any covenant or term under such agreement he will deliver possession of the chattels to the Director on demand, and that the title to and right of possession of the chattels shall be and remain in the Director until the veteran has complied with the covenants and terms of such agreement for a period of ten consecutive years.

Joint Operations

39. A grant pursuant to regulation 38 in an amount not exceeding one thousand two hundred dollars may be made to any veteran in a group consisting of not more than ten veterans, who propose conducting joint operations in farming or forestry, for the purchase of machinery essential to farming, or machinery essential to forestry.

CROP SHARE AGREEMENTS

Crop Share Agreements

40. Veterans established or to be established as farmers under the provisions of section nine of The Veterans' Land Act, 1942, in the spring wheat areas as defined by The Prairie Farm Assistance Act, 1939, and whose farming operations are predominantly directed to the production of spring wheat shall be given the right of election to continue under, or to enter into, a firm term agreement as already provided by section nine of The Veterans' Land Act, 1942, and in addition to such agreement to enter into a crop share agreement as collateral to the terms of the firm term agreement; such collateral agreements may *inter alia* provide as follows:

- (a) That in any year in which the yield of wheat is six bushels per seeded acre or less, the amount payable by the veteran in such year may be extended to the terminating date of the firm agreement and interest shall accrue only on the amount of the principal sum so extended;
- (b) That in any year in which the yield of wheat is in excess of six bushels per seeded acre, the veteran shall deliver to the order of the Director one-half of such excess yield, but in any year in which the yield of wheat is in excess of eighteen bushels per seeded acre, delivery to the order of the Director in excess of six bushels per acre shall be at the option of the veteran;
- (c) That the veteran shall, in each year, seed to wheat not less than one-half of the cultivated acreage on the farm, with respect to which he is indebted to the Director, unless a lesser acreage is approved by the Director;

Veterans Lands Act—concluded

- (d) That the determination of wheat yields for the purpose of such collateral agreements shall be the yields by farm units as established under the provisions of The Prairie Farm Assistance Act, 1939, in those townships or partial townships which qualify for an award under that Act, and by evidence satisfactory to the Director in those townships or partial townships which do not qualify for an award under that Act;
- (e) That in the event the proceeds from the grain delivered to the order of the Director in any year be less than is required to meet the current instalment due under the firm agreement, the amount of the deficiency shall be extended to the terminating date of the firm term agreement and interest shall accrue only on the principal so extended. In the event that the proceeds from the grain delivered to the order of the Director in any year be greater than is required to meet the current instalment, the excess amount shall be applied by the Director as a prepayment of the unmatured section of the loan; and
- (f) That any such collateral crop payment agreement shall be subject to the provisions of sections fourteen to nineteen inclusive, The Veterans' Land Act, 1942.

DISPOSAL OF SURPLUS LANDS AND REPOSSESSED CHATTELS

Disposal of Surplus Lands

41. (1) All lands owned by the Director and being, in his opinion, surplus to his requirements, shall, for the purposes of disposal thereof, be first advertised for sale by public tender subject to the condition stated in such advertising that no offer received by the Director as a result of such advertising shall necessarily be accepted: Provided, however, that this Order shall not apply to lands in project sub-divisions or farm lands which revert to the Director under the provisions of the Act nor to lands which may be sold for the special purposes mentioned in section twenty-two of the Act.

(2) After the time limited in such advertising for the submission of offers has expired, and no offer, which in the opinion of the Director is satisfactory, having been received, the Director may negotiate with any of the persons who made offers or with any other person for the purpose of obtaining a binding offer to recommend for acceptance under section twenty-one of the Act.

Disposal of Repossessed Chattels

42. Where the Director has repossessed chattels theretofore held by a veteran under any agreement with the Director and the nature of the chattels is such that in the opinion of the Director they are likely to deteriorate in value in his hands or prove costly to keep and care for until they can be used for the ordinary purposes of the Act, or are not likely to be required for the ordinary purposes of the Act, the Director is authorized forthwith to sell such chattels by public auction for cash, after due advertising, or privately at a cash price agreed to in writing by the veteran from whom the chattels have been repossessed, or privately after an appraisal thereof by an independent qualified person at a cash price at or near such appraised value.

VETERANS REHABILITATION ACT. (1945, c. 35)

1. *University loans.*
2. *University supplementary grants.*
3. *Reduction of training allowances.*
4. *Veterans Rehabilitation Order.*
5. *Transfers in training.*

1. The Veterans University Loans Regulations

P.C. 4061

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the first day of October, 1946.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS under The Veterans Rehabilitation Act the Minister of Veterans Affairs may, with the approval of the Governor in Council and subject to regulations,

- (a) provide any university in Canada with moneys, whereby and wherefrom the university may make small loans to meet emergency conditions among veterans who are being paid allowances pursuant to sections eight and nine of this Act;

AND WHEREAS the Acting Minister of Veterans Affairs represents that it is desirable that such regulations be now made;

NOW, THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Veterans Affairs and under and by virtue of The Veterans Rehabilitation Act, is pleased to make the following regulations and they are hereby made and established accordingly.

REGULATIONS

1. These regulations may be cited as The Veterans University Loans Regulations.

2. "Student-veteran" means a veteran who is in receipt of allowances under the provisions of section eight or nine of The Veterans Rehabilitation Act.

3. (a) The method of collecting any loan from the student-veteran shall conform to the practice normally followed by each university in handling its own loan funds.
- (b) On January 31 of each year a university which has made a loan or loans under these regulations shall submit a report to the

Veterans Rehabilitation Act—continued

Department of Veterans Affairs showing the number and total amount of the principal of loans made and the total amount of principal and interest repaid thereon during the preceding calendar year together with a cheque to the Order of the Receiver General of Canada for such total amount of principal and interest repaid.

4. For each university making such loans there shall be established a Student-Veteran Loan Board whose membership shall be:

- (a) University Head or his representative,
- (b) The Dean of the Faculty concerned or his representative,
- (c) The University Veteran adviser,
- (d) The District Supervisor of Training, Department of Veterans Affairs.

5. The Student-Veteran Loan Board shall be empowered to authorize a loan to any student-veteran, not exceeding \$500.00 for any academic year and not exceeding a total of \$2,000.00 to any student-veteran, under the following conditions:

(1) The student-veteran shall, subsequent to discharge, have successfully completed at least one year's academic work in a university.

(2) In the unanimous opinion of the Board the student-veteran has established:

- (a) That his financial position is such that the lack of some financial assistance threatens the continuation of his training programme,
- (b) That he does not have other financial resources on which he could reasonably draw,
- (c) That his past record and probable future earning capacity are such that he will be able to meet the repayment requirements of subparagraph (3) of this regulation.

(3) The student-veteran or, if the student-veteran is married, the student-veteran and his or her spouse shall enter into an agreement with the university concerned to make repayments on the following terms:

- (a) The loan shall bear interest at the rate of 5 per cent per annum, interest to commence on January 1 of the year next following the termination of the training programme of the student-veteran concerned.
- (b) The loan or loans shall be repaid at the rate of not less than \$250.00 of principal per year.
- (c) The loan shall be repaid in equal instalments of principal and interest, in monthly, quarterly or annual periods with the first period commencing January 1 of the year next following the termination of the training programme of the student-veteran concerned. The period shall be set at the discretion of the Student-Veteran Loan Board concerned in consultation with the student-veteran concerned.

N. A. ROBERTSON,
Clerk of the Privy Council.

Veterans Rehabilitation Act—continued**2. The University Supplementary Grants Regulations**

P.C. 943

AT THE GOVERNMENT HOUSE AT OTTAWA

SATURDAY, the 6th day of March, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the provisions of The Veterans Rehabilitation Act, Chapter 35 of the Statutes of Canada, 1945, as amended, is pleased to order as follows:

1. The University Supplementary Grants Regulations, established by Order in Council P.C. 3799 of September 23, 1947, are hereby revoked; and

2. The hereinafter set out "The University Supplementary Grants Regulations" are hereby made and established in substitution for the regulations hereby revoked:

REGULATIONS

1. These regulations may be cited as The University Supplementary Grants Regulations.

2. In these regulations, unless the context otherwise requires,

- (a) "Minister" means the Minister of Veterans Affairs;
- (b) "University" means a university or college in Canada of educational standards approved by the Minister;
- (c) "Veteran" means a person on whose behalf tuition fees are payable for the whole or part of the period from 1st July, 1947, to 30th June, 1951, under the provisions of the Veterans Rehabilitation Act while attending university in Canada.

3. (1) Where the expenses incurred by a university in the training of veterans during any period of twelve months commencing on the first day of July in the years 1947, 1948, 1949 and 1950, exceed the fees paid on behalf of the veterans trained at the university during that period, the Minister may, upon receipt of an application so stating, certified as provided in subsection three, make a supplementary grant calculated as provided in subsection two, to the university in respect of such veteran.

(2) A supplementary grant payable under this section shall be calculated as follows:

- (a) Where such tuition fees are payable for the whole of any academic year, the sum of \$150.00, and
- (b) Where such tuition fees are payable for part only of an academic year, a sum which bears the same relation to the sum of \$150.00 as such part bears to the whole academic year.

(3) An application under this section shall be certified by the Principal, President or like officer of the university.

4. The Minister may at any time after the commencement of a twelve-month period mentioned in Section 3(1) hereof authorize an advance to be made on account of supplementary grants payable on the furnishing on behalf of a university of such information as he may require.

N. A. ROBERTSON,
Clerk of the Privy Council.

Veterans Rehabilitation Act—continued**3. Reduction of training allowances because of earnings**

I, Milton F. Gregg, Minister of Veterans Affairs, under and by virtue of the powers conferred upon me by The Veterans Rehabilitation Act, hereby make the following regulations:

No reduction shall be made from the training allowances payable to veteran trainees under Section 7, 8 or 9 of the Veterans Rehabilitation Act because of wages, salary, or other income of the veteran and his dependents except as hereinafter provided:

1. Effective June 1, 1948, veterans who are being trained during the whole or part of the approved training program in industrial or commercial establishments, offices, etc., under articleships, apprenticeships, or special training agreements approved by the Department of Veterans Affairs, shall have their training allowances reduced by the amount in which the wages or salaries paid by the employer-trainer or institution in which training is received exceed the rate of \$75 per month, but income from other sources shall not be taken into consideration.

2. Effective September 1, 1948, veteran trainees pursuing approved courses who have been granted leave of absence for that purpose shall have the training allowance reduced by the amount in which wages or earnings received from the employer during the approved training period exceed \$75 per month.

3. Effective October 1, 1948, veterans who are regularly employed as teachers and who are approved for full-time training during regular vacation periods or periods of absence with pay shall have the training allowance reduced by the amount in which the monthly salary or earnings of the veteran, computed on a twelve-month basis, exceeds \$75 per month.

4. Effective October 1, 1948, veterans who are in receipt of bursaries, grants or special allowances while engaged in research or other activities and who are approved for training which is concurrent with such activity shall have the training allowance reduced by the amount in which the bursary, grant or special allowance exceeds \$75 per month.

5. Effective October 1, 1948, self-employed veterans who are approved for training shall either discontinue the practice of their profession or business activities during the training period, or have the training allowance otherwise payable reduced to zero because of income.

6. Effective September 1, 1949, veteran post-graduate trainees, who receive remuneration from any source for services rendered in their professional capacities or for services directly related to the approved training program, shall have their training allowances reduced by the amount in which such remuneration exceeds \$75 per month; provided that there shall be no such reduction when the remuneration from a university is in payment for part-time services rendered to such university by a regularly approved full-time intra-mural post-graduate student when such part-time service does not result in a lengthening of the normal time required to complete academic and residence requirements of the course or of that part of the course during which the trainee rendered such services.

M. F. GREGG,
Minister of Veterans Affairs.

Ottawa, October 20, 1949.

Veterans Rehabilitation Act—continued**4. The Veterans Rehabilitation Order**

P.C. 5278

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 18th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and pursuant to the provisions of The Veterans Rehabilitation Act, Chapter 35 of the Statutes of Canada, 1945, is pleased to order as follows:

1. The Veterans Rehabilitation Order, established by Order in Council P.C. 216 of 26th January, 1948, as amended, is hereby revoked; and

2. The Order hereto annexed entitled "The Veterans Rehabilitation Order" is hereby made and established in substitution for the Order hereby revoked.

N. A. ROBERTSON,

Clerk of the Privy Council.

THE VETERANS REHABILITATION ORDER

PART I

General

1. For the purpose of computing the compensation payable under section seventeen B of The Veterans Rehabilitation Act to any veteran entitled thereto, or to his dependents in case of death resulting from the accident, such veteran shall at the time of the accident be deemed to be in receipt of a monthly wage from His Majesty equal to the amount of the monthly grant or allowance made to him by the Minister of Veterans Affairs, including, where applicable, the additional amounts paid for dependents, as set out in the "Schedule of monthly rates" attached to and forming part of The Veterans Rehabilitation Regulations;

Provided that in case of temporary total disability the compensation payable to a veteran shall not be less than \$12.50 per week, and in case of temporary partial disability the weekly compensation payable shall not be less than an amount which bears the same proportion to \$12.50 as the partial disability does to total disability;

Provided that for the purpose of computing an award for permanent total or permanent partial disability the veteran shall be deemed to have been in receipt of a monthly wage from His Majesty at an amount which is deemed fair and equitable having regard to the average earnings of a fully qualified person engaged in the same trade, occupation, profession or calling;

Provided further that in the case of permanent total disability the award shall be not less than \$100 per month, subject to the further stipulation that in no case shall the amount of compensation exceed the amount of pension and allowances which would be payable by the Canadian Pension Commission calculated on the basis of marital

Veterans Rehabilitation Act—continued

status and number of persons dependent upon the veteran trainee at the time of the accident had the disability been incurred during service and pensionable under the Pension Act; and for permanent partial disability, a sum which bears the same ratio to the said award as the permanent partial disability bears to permanent total disability.

2. For the purposes of The Veterans Rehabilitation Act and pursuant to the provisions of section eighteen A of the said Act, the war shall be deemed to have terminated on the 31st day of December, 1946.

3. (1) All veterans who, subsequent to the 31st day of August, 1946, by reason of administrative errors on the part of officers concerned in regulating or co-ordinating the various benefits available to veterans under Dominion statutes, incurred financial obligations in the expectation of obtaining benefits under The Veterans' Land Act, 1942, and all veterans with respect to whom the Director, The Veterans' Land Act, has himself at the date hereof made financial commitments, who are willing to repay the Department of Veterans Affairs the allowances received by them or their dependents during a course of training under section eight or nine of The Veterans Rehabilitation Act, shall be allowed to repay such moneys if, in the opinion of the Minister of Veterans Affairs, such veterans commenced such courses in the belief that they were eligible, also, for benefits under The Veterans' Land Act, 1942.

(2) Upon receipt of all such moneys by the Department of Veterans Affairs, such veterans shall be deemed to be entitled to completion by the Director, The Veterans' Land Act, of any arrangements previously entered into with them.

PART II

The Veterans Rehabilitation Regulations

1. These regulations may be cited as "The Veterans Rehabilitation Regulations".

2. In these regulations unless the context otherwise requires "Act" means The Veterans Rehabilitation Act.

3. The Minister may pay the training allowances set out in the Schedule to these regulations to any veteran who is in receipt of a pension for disability under the Pension Act and by reason of that disability is unable to pursue his former occupation or other occupation approved by the Minister and who, in the opinion of the Minister, requires further training to qualify him for employment.

4. (1) In any of the circumstances set forth in subsection (2) of this regulation, allowances under sections seven, eight and nine of the Act may be paid to veterans residing in Canada who wish to attend a university outside Canada or take a course of vocational or technical training at any university, school or other similar institution outside Canada and the fees mentioned in subsection one of section eleven of the Act may be paid to any such university, school or other similar institution.

(2) The circumstances referred to in subsection (1) of this regulation are as follows:

(a) the veteran is resuming at the same university, school or other similar institution a course of training undertaken prior to and interrupted by enlistment;

Veterans Rehabilitation Act—continued

- (b) the veteran is commencing a course of training not provided in Canada with a view to gaining a livelihood in Canada;
- (c) the veteran is completing a course of training that was commenced but cannot be fully completed in Canada;
- (d) the veteran is seriously disabled and his rehabilitation in the opinion of the Minister requires training outside Canada.

5. (1) In any of the circumstances set forth in subsection (2) of this regulation, allowances and fees under sections seven, eight and nine of the Act may be paid to or in respect of veterans residing outside Canada who wish to attend a university or take a course of vocational or technical training at any university, school or other similar institution in the country where they reside.

(2) The circumstances referred to in subsection (1) of this regulation are as follows:

- (a) The Minister and the educational or rehabilitation authorities who administer or supervise the rehabilitation of veterans in the country where the veteran resides approve the training;
- (b) The Minister is of opinion that the training will result in the rehabilitation of the veteran.

(3) In addition to the allowances authorized by subsection (1) of this regulation, the Minister may pay the fees for a correspondence course approved by the Minister and taken by a veteran mentioned in the said subsection if such course is directly related to the veteran's occupation and in the opinion of the Minister is necessary for his rehabilitation.

6. (1) Where a veteran is paid an allowance under section seven of the Act, the fees, costs and charges that may be paid to the institution may include

- (a) tuition fees for approved courses;
- (b) fees for athletics and regular student activities;
- (c) the cost of prescribed text books that are ordinarily purchased by a student and are not included in the fees;
- (d) the cost of expendable material supplied by the institution;

but shall not include uniforms, tools, instruments, reference books or the cost of materials and supplies for making articles where such articles become the property of the student.

(2) The maximum amount of fees, costs and charges that may be paid in respect of one veteran under this regulation for a total period of eight months' training, whether such training is received continuously or intermittently, shall not exceed a total of five hundred dollars.

7. (1) Where a veteran is paid an allowance under section eight or nine of the Act the fees, costs and charges that may be paid to the university may include registration fee, library fee, instrument rental fee, examination fee, and similar fees as specified in the university calendar, except fees for supplemental examinations or refundable caution money or deposits, but shall not include fees for registration in professional organizations such as fees for call and admission to the Bar, fees for law societies, medical and dental associations and engineering societies.

(2) The maximum amount that may be paid to a university shall not exceed \$500 for any veteran for any academic year.

Veterans Rehabilitation Act—continued

8. Training allowances authorized under sections seven, eight and nine of the Act may be terminated for any of the following reasons:

- (a) misconduct of the veteran or his failure to comply with the rules and regulations of the training institution;
- (b) continued absence of the veteran from training without leave for a period of one week or more, unless a satisfactory explanation is produced to the Minister;
- (c) progress or standard of achievement of the veteran unsatisfactory to the head of the training institution and the Minister.

9. (1) No allowances shall be paid under section five of the Act to a married female veteran, whilst her husband is, in the opinion of the Minister, capable of maintaining her either wholly or mainly and under legal obligation so to do.

(2) An allowance under sections four, five and six of the Act may be paid to a married veteran who has a husband dependent on her.

(3) Allowances authorized under sections four, five and six of the Act may be terminated at any time for lack of co-operation on the part of the veteran, or where, in the opinion of the Minister, circumstances have changed to the point where allowance is no longer necessary to the veteran's re-establishment.

10. (1) Except as otherwise provided in subsections (3) and (4) of this regulation, the allowances payable to veterans or to or in respect of their dependents under authority of sections four, five, six, seven, eight, nine, twelve and fifteen of the Act shall be those set forth in the Schedule to these regulations.

(2) In lieu of the monthly payments set forth in the Schedule, *pro rata* payments may be made semi-monthly or weekly in the discretion of the Minister.

(3) Where a pensioner is entitled to allowances under section seven, eight or nine of the Act, he shall be entitled to allowances for his dependents only to the extent that the pension payments for such dependents are less than the allowances provided by the Act.

(4) No allowance, based upon any part of his period of service consisting of time spent by a veteran in professional training in a faculty of medicine or dentistry in any university or in any hospital prior to appointment to a unit as a commissioned officer, pursuant to Canadian Army Routine Orders No. 3202 and No. 3343 as amended, may be paid to or in respect of such veteran.

11. (1) Where a veteran is requested under authority of the Minister to appear at any office for interview or counselling with respect to his rehabilitation, he may be allowed transportation expenses from his place of residence to the place of consultation and return together with other travelling expenses. For the purpose of this regulation

- (a) "transportation" means railway transportation with sleeping berth if necessary, and/or reasonable charge for other modes of transportation when necessary and when supported by proper vouchers. When a privately owned automobile is used, the transportation allowances shall be three cents per mile or the equivalent of one railway fare, irrespective of the number of passengers carried;

Veterans Rehabilitation Act—continued

(b) "other travelling expenses" means:

- (i) meals in transit, if not provided by the transportation company, at \$1.25 each;
- (ii) board and quarters during the time detained which will wherever possible be furnished at a departmental institution, but as to which if not furnished at a departmental institution the following rates shall apply:

Meals, each, 75 cents; lodging, \$3 per night.

(2) The Minister may allow to a veteran taking a course in Canada under authority of section seven of the Act, travelling expenses for one trip from his usual place of residence to the place where the course is being held and one trip back to that residence or, in the alternative, to such other place where, in the interest of rehabilitation, it is deemed by the Minister advisable for him to go and to which he can go without incurring travelling expenses greater than the expense of a trip back to his place of residence aforesaid. For the purpose of this regulation, "travelling expenses" means,

- (a) railway transportation, with sleeping berth if necessary, and/or reasonable charge for other modes of transportation when necessary and when supported by proper vouchers; or
- (b) transportation by privately-owned automobile when authorized with a mileage allowance of three cents per mile or the equivalent of one railway fare irrespective of the number of passengers carried;

and in either case

- (c) the cost of meals in transit, if not provided by the transportation company, at \$1.25 each.

12. (1) The Minister may pay to a veteran pursuing a course authorized under section seven, eight or nine of the Act, and who is a married person or a person in respect of whom an additional allowance for dependents is being paid under the Act, a living allowance of five dollars per week for any week whilst he is necessarily living away from his usual place of residence in pursuing such course and is thereby, in the opinion of the Minister, obliged to incur extra living expenses.

(2) Where a veteran is pursuing a course authorized under section seven of the Act, and who is a married person or a person in respect of whom an additional allowance for dependents is being paid under the Act, and whose place of residence is at such distance from the place where the course is being held that daily transportation to and from such place is advantageous as an alternative to changing his place of residence, he may be allowed transportation to and from such place each day that such course necessitates, at a total cost not exceeding five dollars per week or the actual cost of such transportation, whichever is the less.

13. An allowance may be paid under section seven of the Act to a veteran in the following special cases prescribed pursuant to subsection three of that section, namely:

(a) Where his period of service exceeds twelve months, he has received an allowance under section seven of the Act for a period of twelve months, has made satisfactory progress and, in the opinion of the Minister, requires additional training under that section to qualify him for employment in the vocation for which he is being trained, and

Veterans Rehabilitation Act—continued

(b) Where his period of service exceeds twelve months, he has been paid an allowance or combination of allowances under the Act for a period of less than twelve months and, in the opinion of the Minister, requires training to qualify him for employment.

14. (1) Where a training allowance has been paid to a veteran under subsection two of section eight of the Act, the Minister may extend the period of payment thereof beyond the period of service provided that

- (a) within his period of entitlement he has completed at least one academic year of university work; and
- (b) he has demonstrated such scholarship that on the final examinations of the academic year next preceding the year in which his period of service expires he has passed in all subjects and is in the top twenty-five per cent of that year or has at least second-class honour standing; and
- (c) he has been recommended for such further allowance by the Scholarship Committee of the university concerned.

(2) Where a training allowance has been paid to a veteran, who is a pensioner, under subsection two of section eight of the Act, the Minister may extend the period of payment thereof beyond the period of service provided that such pensioner has obtained pass standing on the final examinations of the year next preceding the year in which his period of entitlement expires.

15. (1) A veteran who has been approved for a course of training under section eight of the Act and has been unable to gain admission thereto shall be deemed to have made application for training under the provisions of section seven of the Act within the time limits prescribed in such section.

(2) A veteran who has received benefits under section eight of the Act and because of failure in examinations or for other reason repeats the whole or part of an academic year at his own expense shall for purposes of section eight A of the Act be deemed to be in receipt of allowances under section eight of the Act during the time spent in so repeating the whole or part of the academic year.

16. (1) The Minister may pay the actual expenses of repatriation of persons discharged from the forces for the purpose of taking training under the Act, such expenses not to exceed the cost of the class of transportation and accommodation to which such persons would have been entitled if they had remained members of His Majesty's armed forces.

(2) Subject to the provisions of the next succeeding subsection hereof, the Minister may, on application, pay the actual cost of transportation and her living expenses during transportation of the wife of any person referred to in subsection (1) hereof, where the marriage of the wife to such person took place outside the Western Hemisphere, as defined in The War Service Grants Act, 1944, either during the service of such person in the forces or subsequent thereto and before the termination of the course of training for the purpose of taking which the person was discharged, and the cost of transportation and living expenses during such transportation of any child of such marriage, and of any child for whose maintenance such person is legally responsible by reason or by virtue of such marriage or by adoption, from the residence of the wife or child in the United Kingdom to the following places:

- (a) To any place in Canada designated by such person, or

Veterans Rehabilitation Act—continued

- (b) To any place designated by such person outside Canada in which he was resident immediately prior to joining the forces.
- (3) (a) No application for transportation for such person or for the wife or any child of such person may be granted unless the application is received by the Minister of Veterans Affairs within six months from the date of termination of the course of training for the purposes of taking which such person was discharged from the forces.
- (b) No such application shall be granted where the person requiring transportation has already, as a former member of the forces, or as a wife or child of such member whether before or after his discharge, on a previous occasion during the war had transportation for a similar purpose paid for by Canada.
- (c) The cost of transportation and living expenses during transportation of a wife or child authorized under subsection (2) hereof shall not exceed the cost of the class of transportation and accommodation to which the wife or child would have been entitled if the discharged person had remained a member of His Majesty's forces.
- (4) For the purpose of subsections (2) and (3) hereof "child" means a child who, if a boy, is under the age of sixteen years or, if a girl, is under the age of seventeen years.

17. (1) Where a pensioner applies for benefits under section eleven A of the Act, such benefits shall not be available to him unless, in the opinion of a full-time medical officer of the Department, the pensioner is by reason of increased pensionable or non-pensionable disabilities unable to follow his pre-war occupation or his principal post-war occupation or the occupation for which he was previously granted training by the Department, and that, as a result, he has been unable to secure or hold steady employment, but has a remaining physical and mental capacity for work, provided that, where one of the aforesaid conditions is fulfilled, training or re-training may be provided and allowances paid without limitation as to date of application or period of entitlement.

(2) A pensioner who has been trained under the provisions of section seven, eight, or nine of the Act and who at a later date, in the opinion of a full-time medical officer of the Department concurred in by the Director-General of Treatment Services, is unable to follow his occupation but who possesses a potential physical and mental capacity for work, may be retrained under the provisions of section seven for a more suitable occupation, without limitation as to date of application or period of training allowances.

(3) Notwithstanding the authority hereinbefore contained in this regulation, the Minister shall have discretion to refuse or discontinue training even though the above conditions apply when, in his opinion, training, without limitation as to date of application or period of training age of a pensioner or for any other reason.

(4) A pensioner, who, in the opinion of the Minister, is unable to obtain suitable employment but who possesses a potential physical and mental capacity for work, may be trained or retrained under the provisions of section seven for a suitable occupation, without limitation as to date of application or period of training allowances.

Veterans Rehabilitation Act—concluded

SCHEDULE OF MONTHLY RATES—(Regulation 10)

Allowances	Single No Dependents	Man and Wife	Children					
			One	Two	Three	Four	Five	Six
	\$	\$	\$	\$	\$	\$	\$	\$
PART I								
Out-of-work, Awaiting Returns, and Temporary Incapacity—Sections 4, 5 and 6 of the Act.	50	70	82	94	104	112	120	128

Additional amount for person in lieu of wife—\$20.00 per month

Additional amount for dependent parent —\$15.00 per month

Allowances	Single No Dependents	Man and Wife	Children					
			One	Two	Three	Four	Five	Six
	\$	\$	\$	\$	\$	\$	\$	\$.
PART II								
Vocational and University Training—Sections 7, 8 and 9 of the Act.	60	90	108	122	134	144	154	164

Additional amount for person in lieu of wife—\$30.00 per month

Additional amount for each dependent parent—not exceeding \$25.00 per month

5. Regulations governing transfers in training

DEPARTMENT OF VETERANS AFFAIRS

I, MILTON F. GREGG, Minister of Veterans Affairs, under and by virtue of the powers conferred upon me for the purpose by subsection (6) of section 8A of The Veterans Rehabilitation Act, hereby make the following regulations:

REGULATIONS GOVERNING TRANSFERS IN TRAINING UNDER THE VETERANS REHABILITATION ACT

1. Subsection 6 of section 8A of the Veterans Rehabilitation Act shall not apply when a veteran is eligible for continued allowances under the section in which his training program was approved, if, in the opinion of the Department, training under the other section is required to fit him for his original or modified occupational goal.

2. The 12-month period referred to in subsection 6 shall not include a period for which allowances were received in pre-matriculation training.

3. District recommendations for transfer, when training allowances have been paid for more than twelve months, except those covered by the immediately preceding paragraph, shall be referred for approval to a Head Office Training Transfer Board composed of—

- (1) The Director-General of Rehabilitation, who shall be chairman.
- (2) The Director of Training.
- (3) The Superintendent of Educational Training.

M. F. GREGG,
Minister of Veterans Affairs

5th July, 1948.

WAR SERVICE GRANTS ACT, 1944. (1944-45, c. 51)

1. *Payment to dependents of deceased veterans.*
2. *Infants or persons of unsound mind.*
3. *Establishment of Committee of Review.*
4. *The War Service Grants Order.*

1. Payment of War Service Gratuity to dependents of deceased members or former members of the forces

DEPARTMENT OF VETERANS AFFAIRS

DIRECTIVE

WHEREAS subsection one of section four of The War Service Grants Act, 1944, reads as follows:—

“4. (1) If a member of the forces dies on service or after discharge but before he has been paid gratuity in full, payment of the gratuity or the unpaid balance thereof shall be made:

- (a) to a person who was in receipt of or who, in the opinion of the Dependents' Allowance Board, was eligible for dependents' allowance on behalf of the deceased member immediately prior to the member's death or discharge;
- (b) to a person, who, in the opinion of the Dependents' Allowance Board would have been eligible for dependents' allowance on behalf of the deceased member immediately prior to the member's death or discharge had such person not been a member of the forces; or
- (c) to a person who, in the opinion of the Minister or such authority as he may designate, was dependent in whole or in part upon a deceased member and to whom pay was assigned by such member immediately prior to the member's death or discharge.”

I, IAN ALISTAIR MACKENZIE, Minister of Veterans Affairs, do hereby designate the Dependents' Allowance Board as the authority to express the opinion required by paragraph (c) of subsection one above set forth; and

Pursuant to the powers vested in me by subsection two of section four of The War Service Grants Act, 1944, I hereby direct that

1. Where there is only one person who was in receipt of dependents' allowance on behalf of the deceased member immediately prior to the member's death or discharge and there is no person eligible under paragraph (b) of subsection one of the said section, that person shall receive the gratuity or the unpaid balance thereof, as the case may be.

2. Where there is no person in receipt of dependents' allowance on behalf of the deceased member immediately prior to the member's death or discharge and there is only one person who qualifies under paragraph (b) of subsection one of the said section, that person shall receive the gratuity or the unpaid balance thereof, as the case may be.

3. Where the total of the number of persons in receipt of dependents' allowance on behalf of the deceased member immediately prior to the member's death or discharge and the number of persons eligible under paragraph (b) of subsection one of the said section is more than one, the gratuity or the unpaid balance thereof, as the case may be, shall be made available for division among such persons so that the amount paid to each

War Service Grants Act—continued

is in the same proportion to the gratuity or the unpaid balance thereof, as the case may be, as the monthly amount of dependents' allowance paid or payable to or in respect of each such person at the date of the member's death or discharge is to the total monthly amount of dependents' allowance so paid and payable. If application for the gratuity is not submitted by or on behalf of all such persons, the persons who do apply shall be paid only that portion of the gratuity which each would have received had the others applied.

4. Where no person qualifies under 1, 2 or 3 above and

- (a) where there is only one person who qualifies under paragraph (c) of subsection one of the said section, that person shall receive the gratuity or the unpaid balance thereof, as the case may be;
- (b) where more than one person qualifies under paragraph (c) of subsection one of the said section, the gratuity or the unpaid balance thereof, as the case may be, shall be made available for division among such persons so that the amount paid to each is in the same proportion to the gratuity or the unpaid balance thereof, as the case may be, as the monthly amount of pay assigned to or in respect of each such person at the date of the member's death or discharge is to the total monthly amount of pay assigned by such member in respect of all such persons. If application for the gratuity is not submitted by or on behalf of all such persons, the persons who do apply shall be paid only that portion of the gratuity which each would have received had the others applied.

5. Where no person qualifies under 1, 2, 3 or 4 above and

- (a) where there is only one person who qualifies by reason of eligibility for dependents' allowance under paragraph (a) of subsection one of the said section, that person shall receive the gratuity or the unpaid balance thereof, as the case may be;
- (b) where more than one person qualifies by reason of eligibility for dependents' allowance under paragraph (a) of subsection one of the said section, the gratuity or the unpaid balance thereof, as the case may be, shall be made available for division among such persons so that the amount paid to each is in the same proportion to the gratuity or the unpaid balance thereof, as the case may be, as the monthly amount of dependents' allowance payable in respect of each such person at the date of the member's death or discharge is to the total monthly amount of dependents' allowance that would have been payable to such persons had they applied for dependents' allowance. If application for the gratuity is not submitted by or on behalf of all such persons, the persons who do apply shall be paid only that portion of the gratuity which each would have received had the others applied.

Notwithstanding anything in this Directive contained, where it appears to the Dependents' Allowance Board in any particular case that some injustice would ensue through compliance with the foregoing provisions of this Directive the said Board shall submit to the Minister of Veterans Affairs for consideration all facts respecting the case together with recommendations to its disposition; and

I hereby revoke the Directives issued by me on the 16th and 30th of December, A.D. 1944, with respect to The War Service Grants Act, 1944.
DATED at Ottawa this 27th day of May, 1946.

IAN A. MACKENZIE

Minister of Veterans Affairs.

War Service Grants Act—continued**2. Payment of War Service Gratuity in respect of infant or person of unsound mind qualified to receive benefit**

DEPARTMENT OF VETERANS AFFAIRS

*Authorizing Order Under Subsection Three of Section Four of
The War Service Grants Act, 1944*

I, IAN ALISTAIR MACKENZIE, Minister of Veterans Affairs, pursuant to the powers vested in me by subsection three of section four of The War Service Grants Act, 1944, do hereby authorize and order that

1. Where an infant qualifies to receive the gratuity or any part thereof, payment of same shall be made

(a) to the surviving parent of such infant;

(b) where the infant is an orphan, to his guardian or any other person in loco parentis:

Provided that where any person authorized to receive the gratuity under this paragraph is a person unfit for and incapable of handling money under the Regulations of the Dependents' Allowance Board, payment shall be made to the Canadian Pension Commission.

2. Where a person of unsound mind other than an infant qualifies to receive the gratuity or any part thereof, payment shall be made to the duly appointed guardian or committee of such person.

3. Payment of the gratuity under paragraphs one and two hereof may be made in a lump sum or monthly instalments as the Dependents' Allowance Board may determine.

4. In sending the gratuity or any part thereof to a person on behalf of the one qualified, there shall be enclosed

(a) a notice quoting subsection three of section four of the Act; and

(b) a statement indicating clearly the beneficiary or beneficiaries and if more than one beneficiary the amount of the payment then being made on behalf of each.

DATED at Ottawa this eighth day of January, 1947.

I. A. MACKENZIE,
Minister of Veterans Affairs.

3. Order abolishing the Board of Review and establishing a Committee of Review

P.C. 2476

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 3rd day of June, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Acting Minister of Veterans Affairs, and pursuant to the provisions of The War Service Grants Act, 1944, as amended by chapter 31—11-12 George VI, is pleased to approve and doth hereby approve the

War Service Grants Act—continued

abolition by the Minister of Veterans Affairs of the Board of Review constituted under the said Act and the transfer of its powers, duties and functions to a Committee of at least three officers of the Department of Veterans Affairs, effective the sixteenth day of June, 1948.

His Excellency in Council is further pleased to order that the members of the said Committee, which shall be known as the Committee of Review, shall be appointed by the Minister of Veterans Affairs; that two members of the said Committee shall constitute a quorum whose decision shall be final except in cases where a favourable decision is not reached in which event the decision of three members of the Committee will be necessary, and that a copy of every decision of the Committee of Review shall be placed on the file of the veteran concerned held at Head Office of the Department of Veterans Affairs.

N. A. ROBERTSON,
Clerk of the Privy Council.

4. The War Service Grants Order

P.C. 5046

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 4th day of October, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Veterans Affairs and under the authority of the War Service Grants Act, 1944, is pleased to order as follows:

1. Order in Council P.C. 5309 of 5th January 1948 (Regulation respecting availability of re-establishment credit to members resident outside of Canada) and Order in Council P.C. 623 of 17th February 1948, as amended, (The War Service Grants Order), are hereby revoked; and

2. The annexed Order entitled "The War Service Grants Order" is hereby made and established in substitution for the Orders in Council hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE WAR SERVICE GRANTS ORDER

PART I

GENERAL

1. In addition to the purposes under section 8 of The War Service Grants Act, 1944, a member resident outside of Canada may have his re-establishment credit made available to him for the following purposes:

(a) Payment of premiums pursuant to any contract of insurance to which the member is a party under the Civil Service Insurance Act;

War Service Grants Act—continued

- (b) Payment under subsection (2) of section 49 of the Royal Canadian Mounted Police Act of a deficiency in deduction from his pay as an officer of the Royal Canadian Mounted Police;
- (c) Payment of contribution in respect of his service as a constable of the Royal Canadian Mounted Police under sections 67, 78, 81 and 82 of the Royal Canadian Mounted Police Act;
- (d) Payment of contributions under section 5 of the Civil Service Superannuation Act in respect of his service in the Civil Service prior to becoming a contributor under that Act; and
- (e) Payment under subsection (2) of section 10 of the Militia Pension Act of a deficiency in deduction from his pay as an officer as defined in that Act.

2. In addition to the purposes under section 9 of The War Service Grants Act, 1944, re-establishment credit may be made available to the member for the following purposes:

- (a) The payment of contributions under section 45 of the Militia Pension Act in respect of his service prior to becoming a contributor under Part V of that Act;
- (b) The acquisition of a unit of living accommodation in a housing project receiving financial assistance under The National Housing Act, 1944; and
- (c) The payment of the purchase price or any part thereof of an annuity already purchased, being purchased, or to be purchased, on his behalf and for his benefit under any pension plan established by his employer and based upon the Government Annuities Act, except for payment of current contributions ordinarily payable from the remuneration of the member under any such pension plan.

PART II

WAR SERVICE GRATUITY REGULATIONS

1. These regulations may be cited as the War Service Gratuity Regulations.

2. In these regulations, 'Act' means The War Service Grants Act, 1944. The words and phrases defined in section 2 of the Act shall bear the same meaning where used in these regulations.

3. The gratuity or any portion thereof payable to a person who qualifies therefor in respect of a member of the forces who dies on service or after discharge, but before such member has been paid in full, shall be paid in one lump sum.

4. Any overpayment of pay and allowances as described in subsection (1) of section 5 of the Act shall be deducted from the gratuity but such overpayments shall not be deemed to include overpayments of pay and allowances made in respect of service in the forces of His Majesty other than those raised in Canada to personnel claiming benefits by virtue of section 17 of the Act.

War Service Grants Act—continued

PART III

RE-ESTABLISHMENT CREDIT REGULATIONS

1. These regulations may be cited as the Re-establishment Credit Regulations.

2. (1) In these regulations, unless the context otherwise requires,

(a) 'Act' means The War Service Grants Act, 1944;

(b) 'Re-establishment Credit Advisory Committee' means any local, regional or provincial honorary advisory committee appointed by the Minister to examine applicants and applications for re-establishment credits available under The War Service Grants Act, 1944, and to advise and report to the Minister with respect to the qualifications of applicants eligible therefor in relation to the objects for which any re-establishment credit is proposed to be used and the soundness of the investment proposed by the applicant.

(2) Unless the context otherwise requires and except as otherwise provided in these regulations, words and expressions in these regulations shall have the same meaning as like words and expressions respectively have in the Act.

3. The Minister shall keep such books and establish such records as he may consider necessary for the proper administration of Part II of the Act.

4. All or any part of the credit established in favour of any member may be made available to him or on his behalf upon his application therefor in writing, which application shall include:

(a) An election not to take benefits under The Veterans' Land Act, 1942, except section 13 thereof, or any educational, vocational or technical training benefits which are provided under The Veterans Rehabilitation Act;

(b) Full particulars of any of the said benefits applied for or already received by him;

(c) A statement verified by his affidavit as to the purpose for which he intends to use the credit; and

(d) Such further information as the Minister may require.

5. A member who makes an application under regulation 4 of these regulations shall submit to the Minister, in addition to his application, such other information and material as the Minister may require.

6. Where the Minister makes any payment under the Act or these regulations to a person other than the member, the person receiving payment shall furnish a receipt for such payment to the member on whose behalf the payment is made.

7. No credit shall be made available to a member for the purchase of a business unless the application therefor is first referred to the Re-establishment Credit Advisory Committee established for the district in which the member resides or the district in which he proposes to use the credit for the purpose of securing its advice as to the soundness of the investment in the case of such member.

8. A person applying for a credit may request that his application be referred to a Re-establishment Credit Advisory Committee.

War Service Grants Act—concluded

9. The Minister may refer any application to a Re-establishment Credit Advisory Committee with a view to securing its advice and recommendation with respect thereto.

10. The Minister may pay to each member of a Re-establishment Credit Advisory Committee the sum of \$10 per day as an honorarium for each day or part of a day spent by such member in the business of the Committee.

11. (1) The Minister may allow members, to whom has been made available all or part of their re-establishment credits, to make the compensating adjustment referred to in section 10 of the Act through deductions in such amounts and at such times as will enable such adjustment to be completed contemporaneously with termination of the member's training under The Veterans Rehabilitation Act. These deductions may be made from appropriate allowances under The Veterans Rehabilitation Act which might otherwise be available to the members in full.

(2) The method of effecting the compensating adjustment set forth in subsection (1) of this regulation shall not be applicable to a member if, in the opinion of the Minister, training would not result in reasonable re-establishment owing to the advanced age of the member or for any other reason but shall be applicable to a member who, in the opinion of the Minister, is unable to obtain suitable employment but who possesses a potential physical and mental capacity for work.

(3) The compensating adjustment hereinbefore mentioned shall be considered to be either the amount of re-establishment credit made available to the member, or the anticipated costs of training, whichever is the lesser.

(4) Where there is an amount of credit still available to the member which is greater than the anticipated costs of training, no compensating adjustment need be made.

(5) Where due to factors or a combination of factors it would be impossible to make total compensating adjustment by deduction from training allowances within the duration of the course of training, the member shall be required to pay or provide additional compensating adjustment in such amount and manner as the Minister deems just: Provided always that such additional adjustment may be reasonably expected to effect total compensating adjustment contemporaneously with the duration of training.

WAR VETERANS' ALLOWANCE ACT, 1946. (1946, c. 75)

No statutory orders or regulations have been made under this statute, but see ASSISTANCE FUND (W.V.A.) (APPROPRIATION ACT, No. 1 1949) (Assistance Fund (W.V.A.) Regulations).

WOMEN'S ROYAL NAVAL SERVICES AND THE SOUTH AFRICAN MILITARY NURSING SERVICE (BENEFITS) ACT. (1946, c. 34)

No statutory orders or regulations have been made under this statute.

**VOCATIONAL TRAINING CO-ORDINATION ACT, 1942.
(1942-43, c. 34)**

No statutory orders or regulations have been made under this statute.

WAR MEASURES ACT. (R.S.C., 1927, c. 206)

See TRANSITIONAL MEASURES, CONVENTION OF; TRADING WITH THE ENEMY (TRANSITIONAL POWERS) ACT.

WAR RISK INSURANCE ACT, 1942. (1942-43, c. 35)

No statutory orders or regulations were in effect under this statute on December 31, 1949.

WAR SAVINGS CERTIFICATES AND STAMPS

See CONSOLIDATED REVENUE AND AUDIT ACT.

WALRUS, REGULATIONS FOR THE PROTECTION OF

See FISHERIES ACT.

WATER, FOR DRINKING, ETC., ON AIR, LAND AND WATER VEHICLES

See DEPARTMENT OF NATIONAL HEALTH AND WELFARE ACT.

WATER POWER

See DOMINION WATER POWER ACT.

WEEKLY DAY OF REST ACT. (1935, c. 14)

No statutory orders or regulations have been made under this statute.

WEIGHTS AND MEASURES ACT. (R.S.C., 1927, c. 212)

1. *Weights and Measures Regulations.*
2. *Gasoline gauge sticks.*
3. *Ice scales.*

1. Regulations respecting Weights and Measures

P.C. 3459

AT THE GOVERNMENT HOUSE AT OTTAWA

MONDAY, the 9th day of August, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and pursuant to the provisions of the Weights and Measures Act, Revised Statutes of Canada, 1927, chapter 212, is pleased to order as follows:

1. The Revised and Consolidated Regulations Respecting Weights and Measures, established by Order in Council P.C. 250 of 13th February, 1929, as amended, and the Regulations established by Orders in Council P.C. 1323 of 6th June, 1936, P.C. 2723 of 20th October 1936 and P.C. 5342 of 31st December 1947 are hereby revoked; and

2. The annexed regulations entitled "Regulations Respecting Weights and Measures" are hereby made and established in substitution for the Regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

Weights and Measures Act—continued

REGULATIONS RESPECTING WEIGHTS AND MEASURES

PART I

SCOPE AND APPLICATION

1. (1) The requirements of Parts II, III and IV of these regulations apply to all weights, measures, and mechanical devices that are used or intended for trade purposes, that is, for weighing or measuring purposes as a basis for any commercial transaction in a commodity or for the evaluation, for payment, of any service. They do not apply to any weight, measure, or weighing or measuring device that is not used or intended for trade purposes.

For the purposes of these regulations, any weight, measure, or weighing or measuring device that is not clearly marked with the words "Not Legal for Trade" by die stamping, engraving, embossing, or other equally permanent means, in a spot always visible to the user, shall be deemed to be intended for trade purposes. Any device so marked shall not be so used: provided that precision balances and equipment designed or intended solely for laboratory or scientific purposes shall be deemed not to be intended for trade purposes and shall not be so used.

(2) For the purposes of these regulations, no device shall be deemed to be intended for measuring or weighing purposes if it does not incorporate or is not adapted for use with a weight, poise, or other device bearing letters, numerals, or symbols which can be regarded as purporting to indicate a definite weight, dimension, volume or value of a commodity, in terms of legal Canadian units.

2. (1) Part V of these regulations applies to standards of weight or measurement maintained for administrative purposes by the Department of Trade and Commerce.

(2) Part VI of these regulations prescribes conditions pertaining to the weighing or measuring of commodities in the presence of the purchaser or for delivery to the purchaser in packages or containers.

PART II

GENERAL REGULATIONS PERTAINING TO INSPECTION

Classification

3. No person shall sell, offer for sale or use, for trade purposes, any device designated in sub-section (1) of Section 1 until it has been listed by the Director of Standards under and subject to the conditions applicable to one of the classes hereinafter defined, and no person shall use any such device for any trade purpose not hereinafter permitted for such class of article.

For the purposes of these regulations, any such device shall be listed in accordance with the following:

Class A—Any device authorized for unrestricted use, in trade, for weighing or measuring commodities or services: for example, a counter scale or a gasoline pump.

Class B—Any device authorized for use, in trade, under special tolerances or conditions and subject to mutual agreement between buyer and seller as regards such tolerances or conditions: for example, certain continuous weighing machines.

Weights and Measures Act—continued

Class C—Any device the use of which, in trade, is authorized only for one or more of the following purposes:

- (a) for weighing or measuring the contents of a package the nature of which precludes the possibility of unrecognized gain or loss in weight of the contents, by evaporation or otherwise, subsequently to closure: for example, a filling machine for cans of the sealed type;
- (b) for weighing or measuring other commodities in association with a Class A device: for example, certain automatic bagging machines;
- (c) for weighing or measuring any commodity when such use has been expressly agreed upon by the purchaser and vendor, for example certain devices for the measurement of areas.

No device described in paragraph (b) preceding shall be used except in association with a Class A device. No device described in paragraph (c) preceding, with the exception of a coin-operated weighing machine, shall be used on any retail premises.

Identification of Classes

4. (1) Any article classified as "A" may bear the words "Class A Device—Department of Trade and Commerce."

(2) Any article classified as "B" shall bear the words "Class B Device—For Special Use Only—Department of Trade and Commerce" and shall not be used on any retail premises.

(3) Any article classified as "C" shall bear the words "Class C Device—Unverified—For Restricted Use only—Department of Trade and Commerce".

(4) Any words required by this section shall be applied by the manufacturer or a dealer, shall be clear and legible, and shall be marked by dyestamping, engraving, embossing, or other equally permanent means, on a part of the device that is at all times visible to the user. They may be applied to a permanently attached metal plate.

Required Inspections

5. (1) *Prior to Listing*—

As a prerequisite to the listing of any device as Class A or Class B or Class C, an application for such listing shall be made by the manufacturer or the importer to the Director of Standards. Any such application shall be accompanied by all pertinent drawings, specifications and construction and erection details.

When listing as a Class A or Class B device is desired, a prototype shall be submitted for testing, with all charges prepaid; provided that, at the discretion of the Director of Standards, inspection or testing of heavy equipment intended for erection at the place of use, or of equipment in which minor changes have been made, may be done at the factory or may be omitted.

The listing of any device shall be based strictly on the prototype. Any subsequent change in design, materials, or construction shall be regarded as a change of type and shall require a new application for listing.

(2) *Prior to Use*—

- (a) Subject to clause (b) following, any device that is not marked Class C shall be subject to inspection before use, and no manufacturer or dealer shall allow any such device to be removed

Weights and Measures Act—continued

from his premises unless it has been duly inspected and stamped and unless he is in possession of an inspection certificate in accordance with these regulations; provided that, as regards any large machine to be erected at the place of use, such inspection may be postponed at the discretion of the Director of Standards until erection is complete. Such certificate shall be given to every purchaser at the time of delivery. No person shall use any such device for trade purposes unless he has such certificate in his possession.

- (b) Notwithstanding clause (a) preceding, the following need not be inspected or stamped:
- (i) linear measuring devices having no moving parts and bearing the name or registered trade mark of the maker; provided that no error in any such device shall exceed the appropriate tolerances prescribed in Section 9;
 - (ii) volume measuring devices having no moving parts and bearing the name or registered trade mark of the maker; provided that if any such device does not fulfil the appropriate requirements applicable to trade measures prescribed in Section 10, such device shall be marked by the manufacturer with the words "Not Legal for Trade" in the manner set forth in Section 1 and shall not be used for trade.

The Director of Standards may designate any device as being one to which a provision of this subsection shall or shall not apply.

(3) *During Use.*—

- (a) Any device for which inspection before use is required shall be subject to reinspection at intervals not greater than one year; dating from the first inspection; provided that, subject to clause (b) following, any volume-measuring device of a capacity greater than 100 gallons and in which moving parts are limited to valves need not be inspected more frequently than at intervals of three years.
- (b) Any device which has undergone repairs or overhaul in any way that might affect its accuracy or calibration shall be subject to reinspection and the issuance of a new certificate before re-use. It shall be the responsibility of the person doing such repairs or overhaul to notify the District Inspector having jurisdiction that such device is ready for inspection.
- (c) The owner of any mobile measuring equipment shall be responsible for presenting it for any required inspection within the period specified.

6. (1) When any device for which inspection during use is required is so inspected and found not to comply with the specifications hereinafter prescribed, the inspector shall attach a rejection tag to such device prohibiting its use until repaired and reinspected; provided that, when he is satisfied that hardship would result from prohibition of its use and that due precautions will be taken, he may, at his discretion, allow the owner, in writing, a stated period, in no case more than 60 days, in which to have repairs made.

At the end of any such stated period, the device shall be subject to reinspection. If such reinspection shows the device to comply with the

Weights and Measures Act—continued

specifications hereinafter prescribed, the device shall be stamped and a certificate issued; if it fails to comply, the inspector may allow one further period of interim use; if it still fails to comply, or if the user can produce no evidence that due diligence was used in attempting its repair after the first or second inspection, no further use of the device shall be made pending its repair and reinspection.

When the District Inspector having jurisdiction is in receipt of written notification from a repair or service man informing him that he has repaired such device and guaranteeing that the device, as repaired, fulfils the prescribed requirements the Inspector may, in his discretion, issue an interim permit allowing use of the device pending reinspection.

If any device, the use of which is prohibited, is used for trade purposes before the issuance of a new certificate and the owner is not in possession of an interim permit, it shall be seized and held at the disposition of the Minister.

(2) When any static measuring device referred to in clause (b) of subsection (2) of Section 5 is found not to comply with the specifications hereinafter prescribed, the inspector shall, (a) obliterate any indication of measure on it; or (b) if any such mark cannot be obliterated, destroy the device.

(3) The provisions of this section shall not absolve any user from any legal consequences of his using any false or unjust device.

PART III

SPECIFICATIONS AND TOLERANCES FOR VERIFIED DEVICES

General Requirements

7. (1) Any weight, measure, or weighing or measuring device of Class A or Class B shall be so designed and constructed as to provide accurate measurement and facilitate the prevention of fraud. Its material and workmanship shall be such that, unless otherwise specifically provided herein, it may reasonably be expected to maintain the accuracy hereinafter prescribed, under ordinary conditions of use, for a period corresponding with the frequency of inspections required by Section 5.

(2) Any such device that is unsuitable for marking with a die stamp shall be provided with either one or more suitable metal plugs securely retained by an undercut or boss, or with an attached metal plate, for the application of an inspection stamp and a date stamp.

(3) When any weighing or measuring device incorporates any price-indicating feature, the percentage of error in such indication shall not be greater proportionately than the tolerance hereinafter prescribed for the corresponding weight or measure.

(4) The requirements of Section 8 to 14 inclusive apply to all Class A devices, and to all Class B devices unless otherwise provided in the terms of a certificate of listing.

Weights and Measures Act—continued

(5) Subject to sub-section (4) preceding, the tolerances hereinafter prescribed are applicable to all Class A and Class B devices; provided that, when the conditions of any licence or regulation issued by any authority having specific jurisdiction require a greater degree of precision, or when the owner or user of any device so requests, the Director of Standards may cause such device to be verified with any greater degree of precision that may be attainable in relation to any Dominion standard of weight or measure.

(6) In any case where the Minister is of opinion that any provision of these regulations should not be applied, he may give such special directions as he deems proper to fulfil the general intent of these regulations.

SPECIFICATIONS AND TOLERANCES

Weights

8. All weights shall conform to the following detailed requirements:

- (a) *Composition*—Any weight may be composed of any metal or metals if the following requirements are fulfilled:

The density (sp. gr.) shall not be less than 2·7. The hardness of the surface on the Brinell scale shall not be less than 50. The surface shall have sufficient durability and corrosion resistance to fulfil the requirements specified in Section 7.

- (b) *Shape and Finish*—The finish shall be smooth and the general shape such that there will be a minimum of accumulation of foreign matter under ordinary conditions of use. The ratio of surface area to weight shall not be greater than is reasonably consistent with the manner of its intended use.

The means for handling or manipulation provided on any weight or poise (such as knobs, handles, shoulders, grooves or turned edges) shall be so designed and placed as to (i) give compactness, (ii) be as free as possible from recesses, sharp corners or other surface elements that would tend to hold foreign matter and (iii) best conform to the general shape of the body of the weight.

The depth of any reducing hole shall not exceed one-half its diameter.

- (c) *Marking*—Except when its size would prevent the application of a legible inscription, any weight shall be permanently marked with its nominal weight and any ratio weight (that is, any weight which is intended for use on other than an equal-arm balance) shall also show the weight that it represents when so used.
- (d) *Tolerances*—Any weight shall fulfil the appropriate tolerance indicated in Table 1, 2, 3, or 4 hereof, both in excess and in deficiency, intermediate values being interpolated proportionately; provided that the tolerance on any ratio weight shall not be greater than half such tolerance, or 0·015 per cent, whichever is the greater.

Weights and Measures Act—continued

TABLE 1

(Avoirdupois Units)

Nominal Weight	Specific Tolerance	Nominal Weight	Specific Tolerance
100 pounds and over.....	0·015 per cent	4 ounces	3 grains
50 pounds	60 grains	2 ounces	2 grains
20 pounds	35 grains	1 ounce	1·0 grain
10 pounds	25 grains	8 drams	0·5 grain
5 pounds	20 grains	4 drams	0·3 grain
2 pounds	10 grains	2 drams	0·3 grain
1 pound	5 grains	1 dram	0·3 grain
8 ounces	4 grains	$\frac{1}{2}$ dram	0·3 grain

TABLE 2

(Prescription Weights—Apothecaries Units)

Nominal Weight	Specific Tolerance	Nominal Weight	Specific Tolerance
10 ounces	4 grains	20 grains	0·20 grain
5 ounces	3 grains	10 grains	0·15 grain
2 ounces	2 grains	5 grains	0·08 grain
1 ounce	1·5 grains	2 grains	0·05 grain
240 grains	1·0 grain	1 grain	0·03 grain
120 grains	0·6 grain	0·5 grain	0·02 grain
60 grains	0·4 grain	0·2 grain	0·015 grain
30 grains	0·25 grain	0·1 grain	0·01 grain

TABLE 3

(Troy Units)

Nominal Weight	Specific Tolerance	Nominal Weight	Specific Tolerance
1000 ounces	5 grains	0·5 ounce	0·20 grain
500 ounces	5 grains	0·2 ounce	0·15 grain
200 ounces	4 grains	0·1 ounce	0·11 grain
100 ounces	3 grains	0·05 ounce	0·07 grain
50 ounces	2·5 grains	0·02 ounce	0·045 grain
20 ounces	1·0 grain	0·01 ounce	0·035 grain
10 ounces	0·9 grain	0·005 ounce	0·025 grain
5 ounces	0·5 grain	0·002 ounce	0·015 grain
2 ounces	0·3 grain	0·001 ounce	0·010 grain
1 ounce	0·25 grain		

Weights and Measures Act—continued

TABLE 4

(Metric Units)

Nominal Weight	Specific Tolerance	Nominal Weight	Specific Tolerance
20 kilograms ...	3,000 milligrams	2 grams	10 milligrams
10 kilograms ...	2,000 milligrams	1 gram	8 milligrams
5 kilograms ...	1,500 milligrams	500 milligrams ...	5 milligrams
2 kilograms ...	1,000 milligrams	200 milligrams ...	3 milligrams
1 kilograms ...	800 milligrams	100 milligrams ...	2 milligrams
500 grams	500 milligrams	50 milligrams ...	1.0 milligram
200 grams	200 milligrams	20 milligrams ...	0.5 milligram
100 grams	150 milligrams	10 milligrams ...	0.4 milligram
50 grams	80 milligrams	5 milligrams ...	0.3 milligram
20 grams	40 milligrams	2 milligrams ...	0.1 milligram
10 grams	30 milligrams	1 milligram	0.1 milligram
5 grams	20 milligrams		

Static Measures of Length

9. All static measures of length shall conform to the following detailed requirements:

(a) *Composition*—Any static measure of length may be composed of any material if, at any temperature between 32° F. and 150° F., and any relative humidity between 5 per cent and 95 per cent, when laid on a flat surface, it fulfils the tolerances specified in clause (d) following, under static tensions of 1 pound and 25 pounds and the graduation marks and any letters or numerals have been unaffected by the heat or moisture.

(b) *Finish*—Any measure shall be finished smooth, except for graduations. When it is placed under a tension of one pound while lying on a flat surface, no part of a measuring edge shall be farther from a straight line joining the ends than 0.1 per cent of its length.

(c) *Graduations*—Every measure shall be permanently marked with its unit and denomination.

All graduation lines shall be clear and distinct; no such line shall be wider than one-quarter of the value of the smallest subdivision or wider than 0.03 inches, whichever is the less, at its narrowest point.

In determining the relation of any measure to the tolerances prescribed in clause (d) following, the centre of any graduation line shall be used for measuring purposes.

(d) *Tolerances*—The error in any static measure of length shall not exceed the equivalent of 0.05 per cent of the length indicated, provided that this shall not require any graduation to be accurate within less than 0.01 inch.

Weights and Measures Act—continued

Static Measures of Volume

10. (1) For the purposes of these regulations, a static measure of volume means a container which bears permanently upon it an indication of its capacity and which discharges by gravity through a spout or over a lip or rim. A measure which is drained from the bottom shall be deemed to be a mechanical device, as to which see Section 11.

(2) All static measures of volume shall conform to the following detailed requirements:

- (a) *Composition*—A measure of volume may be made of any suitable material that has sufficient strength, rigidity and durability to maintain its form and accuracy and to resist indentation, distortion or breakage under ordinary conditions of use; provided that it shall be made only of material that is impervious to and unaffected by any liquid or solid for which it is intended.
- (b) *Design*—Any measure of volume shall be substantially prismatic or cylindrical in shape with the minimum horizontal dimension not less than half the maximum. The internal dimensions at the capacity mark of any liquid measure shall be such that the removal from it of an amount of its contents equal to the tolerance prescribed in clause (d) following will lower the level of such contents by not less than 0·1 inch, or half this amount if the measure is transparent. The internal height of any measure for solids, below the rim or below the capacity mark, if any, shall not be less than the maximum horizontal internal dimension.

No spout, pouring lip, or anti-splash protection shall lie below the upper surface of the contents when a measure is filled to its capacity.

- (c) *Marking of Capacity*—Any measure of volume shall be deemed to be filled to its capacity when the top surface of its contents is in contact throughout its length with the bottom edge or portion of any mark or marker incorporated in it by embossing, engraving, die stamping, or other equally permanent means. If there is no such mark or marker, (i) any measure for solids shall be deemed to be filled when its contents are struck off in a plane bounded by the upper edge and (ii) any other measure shall be deemed to be filled to its capacity when its contents occupy 98·0 per cent of the volume below its upper rim.

No static measure of volume shall be graduated or marked to indicate more than one volume.

- (d) *Tolerances*—

- (i) Any measure of volume shall fulfil the appropriate tolerance indicated in Table 5, 6, or 7 following, both in excess and in deficiency, intermediate values being interpolated proportionately; provided that no deficiency shall be allowed in any new measure the nature of which is such that it could be bent or distorted without breaking, and provided further that the average error of 30 similar measures taken at random from the production of any manufacturer shall be not more than one-half such tolerance.

Weights and Measures Act—continued

TABLE 5

(Liquid Measure)

Nominal Capacity	Per cent Tolerance
10 gallons	0·4
5 gallons	0·5
2 gallons	0·6
1 gallon	0·8
$\frac{1}{2}$ gallon	1·0
1 quart	1·25
1 pint	1·5
$\frac{1}{2}$ pint	3·0
1 gill	4·0

TABLE 6

(Dry Measure)

Nominal Capacity	Per cent Tolerance
1 bushel	0·8
$\frac{1}{2}$ bushel	1·0
1 peck	1·2
$\frac{1}{2}$ peck	1·6
2 quarts	2·0
1 quart	2·5
1 pint	3·0

TABLE 7

(Metric Measures of Volume)

Nominal Capacity	Per cent Tolerance
25 litres	0·5
10 litres	0·6
5 litres	0·7
2 litres	1·0
1 litre	1·25
500 millilitres	1·5
200 millilitres	3·0
100 millilitres	4·0

- (ii) The percentage tolerances specified in these tables apply to the nominal capacity of any measure unless it bears a permanent indication that it is calibrated on a “to-deliver” basis.

Weights and Measures Act—continued

Mechanical Measuring and Weighing Devices

11. General Requirements—All mechanical measuring or weighing devices shall conform to the following requirements:

- (a) Any mechanical device, being any device incorporating any moving part, shall bear permanently and legibly marked upon it or on a rigidly attached plate in an easily accessible place the following information:
 - (i) the maker's name;
 - (ii) the type or design number;
 - (iii) the maker's serial number;
 - (iv) the rated capacity (either in static units or in units per minute).
- (b) For the purposes of this Section, "rated capacity" means:
 - (i) in a device which is designed to weigh or measure in batches only, the highest reading on the means of indication;
 - (ii) in a device which is designed to weigh or measure in a continuous operation, the reading corresponding with its rated capacity per minute, as designated by the manufacturer.
- (c) When the condition or characteristics of any foundation or any other ancillary equipment causes any device to depart from the tolerances prescribed in these regulations, such device shall be subject to rejection in the same way as if such foundation or ancillary equipment had been part of such device.
- (d) No device shall be listed or calibrated or certified for use or be used to measure or weigh any quantity in excess of its rated capacity.
- (e) Any device shall incorporate means whereby a seal can be applied effectively preventing any adjustment of its registration, other than that required to balance it at zero registration; provided that this requirement shall apply only to devices sold after January 1, 1950.
- (f) Any means of adjusting the accuracy of registration shall have a fineness not greater than one-fourth of the tolerances prescribed in these regulations.
- (g) In any device, or in any installation in which such device is incorporated, there shall be no means of wrongfully diverting any material after weighing or measurement or of delivering any unmeasured or unweighed material.
- (h) Any means of indicating registration shall be set up in a static position, and in any device intended for retail use means of indication shall be provided in plain and unobstructed view from the position ordinarily occupied by the purchaser. The narrowest part of any graduation mark shall be deemed to be the point of indication; it shall not be wider than one-fourth of the distance from its centre to the centre of the next adjacent graduation.
- (i) Any device shall be of sufficiently rugged construction to withstand, without impairment of the accuracy of its measurement, such wear, shocks and exposure to water, dust or extremes of temperature as may be expected to occur in ordinary usage.
- (j) Any device shall be designed to operate in a plumb and level position, and if the accuracy of measurement is affected to an extent

Weights and Measures Act—continued

greater than one-half of the prescribed tolerance by an out-of-level condition of 3 degrees, adequate means of levelling shall be provided, together with means of indicating when the device is standing level and means of locking the levelling adjustment.

- (k) Any device shall be properly adapted to the particular service in which it is to be used, in respect of pressure, character of liquid or of solid or of other material handled and normal range of operation. For the purposes of this requirement, a measuring device shall be deemed to be properly adapted to such service if, during use, no component part is stressed more than would be recognized as good engineering practice and all normally occurring variations in operating conditions are successfully met by performance within the prescribed tolerances.
- (l) If, in service, a possibility exists for the development of abnormal conditions of operation, under which any device would be rendered inaccurate, adequate precautions shall be taken to prevent the occurrence of such conditions.

Weighing Devices

12. All mechanical weighing devices shall conform to the following detailed requirements:

- (a) *Restrictions on Use*—No device shall be used for weighing any load the gross weight of which is less than 100 times the actual error in the registration of such load.
- (b) *Means of Registration*—Registration may be by weights, poises, beams or indicators, or a combination of these. Any device shall balance freely at zero indication, and there shall be no stop to interfere with the movement of any indicator-hand to a position perceptibly below zero indication.
- (c) *Graduations*—The distance or equivalent numerical difference between any two graduation marks or numerical indications of weight shall not be less than that corresponding with the actual error at either such mark or indication; provided that this requirement shall apply only to devices sold after January 1, 1950, and, in a continuous device, will apply only in respect of quantities not greater than the quantity corresponding to the rated capacity of the device.
- (d) *Accuracy of Reading*—Any reading shall be clearly discernible with a precision of not less than one-fourth of the tolerance prescribed in this section when the line of vision is normal to the plane of the means of registration, and not less than one-half of such tolerance when the line of vision is at an angle of 15 degrees with such plane.
- (e) *Performance Test*—As a prerequisite to listing, any device shall be subjected to 100,000 loadings to its rated capacity, the means of indication being allowed to come to rest after each loading or being set at the rated capacity, as the case may be, such loads being applied and removed at a speed of approximately 24 inches per minute. After the completion of such a schedule of loadings, the sensitivity and error of registration shall be determined under each of the following conditions, and shall conform to the requirements prescribed in clauses (f) and (g) following:

Weights and Measures Act—continued

Conditions for Determining Sensitivity and Error

- (i) At, and after 24 hours subjection to, 0°F. and prevailing humidity.*
- (ii) At, and after 24 hours subjection to, 32°F. and prevailing humidity.
- (iii) At, and after 48 hours subjection to, 100°F. and 95 per cent relative humidity.

* These conditions shall not be applied to any device intended solely for interior use at normal temperature.

The performance test may be omitted or modified in the light of practical conditions in the discretion of the Director of Standards.

- (f) *Sensitivity*—The minimum weight necessary to cause a perceptible change in the registration at any point in the capacity range shall not be greater than one-quarter of the permissible error at rated capacity as prescribed in clause (g) following.
- (g) *Tolerances*—At any graduation point, the error of registration shall not exceed the appropriate tolerance indicated in Table 8 following, expressed as a percentage of such registration, intermediate values being interpolated proportionately; provided that such error need not be less than $\frac{1}{4}$ of the permissible error at rated capacity, nor less than the equivalent of a movement of 0.03 inches by the means of indication.

TABLE 8

Equivalent Rated Capacity	Tolerance at any Graduation Point Per cent of Registration
100 pounds and over	0.10
50 pounds	0.12
30 pounds	0.15
20 pounds	0.20
10 pounds	0.25
5 pounds	0.3
2 pounds	0.4
1 pound	0.5

For any device which includes a mechanism for automatically recording the registration, the tolerance listed in Table 8 shall be increased by 0.1 per cent of the registration.

The tolerances above prescribed shall apply to any device in service and to any other device before and after the loading test prescribed in clause (e) preceding has been made.

- (h) *Eccentric Loads*—The tolerances prescribed in Table 8 apply to the registration of any load applied substantially at the centre of any platform, hopper or other separate load-receiving element of a device. When a load equal to one-quarter of the maximum rated capacity of any separate load-receiving element is applied to any part of such element, the tolerances shall not be exceeded.
- (i) *Adjustments*—When any device is rejected and the prohibition of its use would constitute a hardship on the owner, the inspector may, in his discretion, make such adjustments as the owner or his authorized agent may request in writing, provided that no such adjustment shall involve the machining, handworking or alteration of any component part of the device or of its installation.

Weights and Measures Act—continued*Measures of Length or Distance*

13. (1) Any mechanical device intended for the linear measurement of any article, when used for the measurement of a test quantity of such article, shall register such length with an error not exceeding 1·0 per cent, provided that this shall not require any error to be less than $\frac{1}{4}$ inch.

For the purpose of this requirement, a device shall be deemed to be intended for the measurement of any article if it is mechanically adapted to such article, unless it has permanently on it an indication that it is not so intended.

(2) Any mechanical device intended for the measurement of distance travelled shall register such distance with an error of not more than 3 per cent; provided that this shall not require any error to be less than 50 feet.

Measures of Volume

14. (1) *Scope*—The requirements of this section apply to any device which incorporates any moving part and which is intended for the measurement of the volume of any commodity, and includes the following:

- (a) any liquid meter, whether installed separately or associated in a single unit with a pump, and any self-metering pump;
- (b) any tank or container, discharging through a valve, either by gravity or by pressure, and which is graduated to indicate any specific volume in a legal measure,

whether such device is installed in a fixed position or is mounted on or incorporated in a vehicle.

For the purposes of these regulations, a self-metering pump shall be considered to be a meter.

(2) *General requirements*—All mechanical measures of volume shall conform to the following requirements:

- (a) *Interrupted Flow*—Any device shall be so constructed or fitted that it will not register falsely when the flow of material is interrupted or when it contains air bubbles or entrained vapour. For the purposes of this requirement, no registration shall be deemed to be false if it fulfils the appropriate tolerance prescribed in clause (e) following.
- (b) *Protection Against Foreign Matter*—Any device not specially designed for the measurement of material containing solids shall be adequately protected against sediment or abrasive particles entrained in any material for which it is used.
- (c) *Graduations*—The distance or the equivalent numerical difference between any two graduation marks or indications of volume shall not be less than that corresponding to twice the actual error at either such mark or indication; provided that this requirement shall apply only in respect of volumes not greater than the volume corresponding to the rated capacity of the device.
- (d) *Sensitivity*—At any graduation point or at any numerical indication, the minimum volume that will visibly affect the registration shall not exceed one-fourth of the permissible error of registration prescribed in Table 9.
- (e) *Tolerances*—The error of registration for any mechanical measure of volume other than a water meter shall not exceed the appropriate percentage shown in Table 9 for the test quantity used. For any

Weights and Measures Act—continued

meter, the two test quantities shown in Table 10 opposite the rated capacity of such meter shall be used. Subject to clause (a) of sub-section (4) of this section, the test quantity for any measuring tank may be any quantity within its rated capacity.

TABLE 9

Test Quantity	Tolerance (Per cent of Registration)
50 gallons and over	0.25
20 gallons	0.3
10 gallons	0.4
5 gallons	0.5
2 gallons	0.7
1 gallon	1.25
$\frac{1}{2}$ gallon	1.5
1 quart	2.0
1 pint	3.0
$\frac{1}{2}$ pint	4.0

These tolerances shall apply to the measurement of any material which the device is intended to measure.

- (3) *Meters*—All meters shall conform to the following requirements:
- (a) Any meter shall incorporate, or be installed in conjunction with, means for preventing the rate of flow from exceeding the rated capacity.
- (b) *Restrictions on Use*—No device shall be used for measuring any quantity of which the percentage of error in registration exceeds the tolerance specified in Table 9 for the smaller test quantities specified in Table 10 for such device.
- (c) No meter shall be used for any purpose not specified by the manufacturer. Any calibration of a meter shall be made by the use of material having chemical properties similar to those of the material for which such meter is intended, and physical properties such that the degree of accuracy of the meter in terms of the intended material will be known.
- (d) Any meter intended for the retail sale of any commodity shall be so designed as to be inoperable or otherwise to give an indication if the registration is not re-set to zero following any transaction; provided that this requirement shall not apply to any meter designed automatically to provide the purchaser with a printed sales slip or voucher indicating the amount delivered. Nor shall it apply to any meter having a rated capacity of 50 gallons or more.
- (e) The registering element of any meter shall not be capable of being moved in a forward direction by any means other than the passage of fluid unless automatic means of obscuring the registration until it is re-set to zero are provided.
- (f) Meters shall be tested at one-third, two-thirds and full rated capacity, and with the test quantities shown in Table 10.

Weights and Measures Act—continued

TABLE 10

Equivalent Rated Capacity (Gallons per minute)	Test Quantities
Over 50 gallons	50 gallons and quantity equal to a one-minute run at full capacity
20 to 50 gallons	10 gallons and 50 gallons
5 to 20 gallons	1 gallon and 5 gallons
1 to 5 gallons	$\frac{1}{2}$ gallon and 1 gallon
Less than 1 gallon	1 pint and 1 quart
(4) <i>Measuring Tanks</i> —All tanks shall conform to the following requirements:	
(a) No measuring tank that is not transparent, or does not incorporate a gauge glass, showing clearly the surface of the liquid in relation to the prescribed mark or marker, shall be calibrated or used to indicate the delivery of more than one volume of less than 25 gallons. No measuring tank shall be calibrated or used to indicate the delivery of any volume corresponding with a height in such tank at which the removal of a quantity of the contents equal to the tolerance prescribed for such volume in Table 9 would change the level by less than 1/16th of an inch.	
(b) No measuring tank installed on or incorporated into any vehicle shall be calibrated or used to indicate any quantity if any change in the load on the vehicle, other than such indicated quantity, will change the level of the surface with reference to such calibration by more than the tolerance prescribed in sub-section (2) preceding, provided that this requirement shall apply only to tanks sold after January 1, 1950.	
(c) No tank designed for a fixed installation shall be inspected until erection is complete. No tank designed for a portable installation shall be inspected until all necessary supports have been installed and it is resting upon, a level surface; provided that any tank installed permanently on or incorporated in a vehicle shall be inspected when such vehicle is resting on a level surface.	
(d) There shall be no pipe or other connection between any two or more tanks that are intended for separate calibration; provided that a battery of calibrated tanks may be used if automatic means is provided to prevent positively any flow from one tank to another.	
(e) All pipe which is not part of a common manifold shall be included in the calibration of any tank, and all pipe which is part of a common manifold shall not be so included.	
(f) Any tank shall be so designed that under all conditions of use, subject to the tolerances provided in sub-section (2), it will deliver the total quantity for which it was calibrated through the most remote drain valve that is rigidly connected to it. Subject to the provisions of clause (e) preceding, all intermediate valves shall be opened while the tank is being filled.	
(g) (i) Any detachable gauge stick for use with a measuring tank shall bear the same identification number as the tank for which it is intended and in addition shall provide for the application of the inspection number, inspection stamp, and date of inspection.	

Weights and Measures Act—continued

- (ii) Any detachable gauge-stick shall be used only in a vertical position and the tank shall be so constructed that the stick when so used will rest upon a horizontal plane. Both the stick and the tank shall be so designed and constructed that all other requirements of these regulations will be fulfilled in the same way as if such stick were part of the tank assembly.
- (5) *Delivery Hoses*—All delivery hoses shall conform to the following requirements:
 - (a) No flexible hose shall form part of the calibrated volume of any measuring tank.
 - (b) When any measuring device is equipped with a delivery hose which is designed to remain full at all times, such assembly shall incorporate adequate means of:
 - (i) preventing the draining of such hose and
 - (ii) protecting such hose against any pressure that would cause it to expand sufficiently to allow the accuracy of the indicated measurement to exceed the tolerances prescribed in sub-section (2) preceding.
 - (c) When a retail measuring device is equipped with a hose which is designed to remain empty before and after delivery, it shall incorporate,
 - (i) visual means of indicating zero liquid level,
 - (ii) automatic means of breaking vacuum to ensure complete delivery.

PART IV

FEEs

15. The appropriate fees prescribed in the Tables in this Part shall be payable on the issuance of any certificate of inspection under these regulations; provided that no inspection fee shall be payable when any weight, measure or weighing or measuring device is reinspected after previous rejection and is found satisfactory.

Trade Weights

16. (1) The following fees shall apply to the following trade weights:

TABLE 11

<i>Avoirdupois—</i>	<i>Fee</i>
Up to and including 5 pounds.....	5 cents each
Over 5 pounds and including 10 pounds.....	10 cents each
Over 10 pounds and including 60 pounds.....	20 cents each
<i>Troy</i>	
Up to and including 5 ounces.....	5 cents each
Over 5 ounces and including 50 ounces	10 cents each
Over 50 ounces and including 100 ounces	20 cents each
Over 100 ounces and including 300 ounces	25 cents each
Over 300 ounces and including 1,000 ounces	30 cents each
<i>Metric</i>	
Up to and including 2 kgs.	5 cents each
Over 2 kgs. and including 5 kgs.	10 cents each
Over 5 kgs. and including 20 kgs.	20 cents each
Over 20 kgs. and including 50 kgs.	25 cents each

Weights and Measures Act—continued

(2) *Reduced Fees*—When weights of the larger denominations are submitted in quantities of 20 or more in the same unit size, the fee shall be reduced to 10 cents each.

Sets of weights used with equal arm balances up to 50 pounds, but not exceeding in their sum the capacity of such equal arm balance, shall be verified at 5 cents each.

The fee for reinspection of 50-pound iron test weights used solely for the testing of large capacity scales shall be 5 cents each.

The above fees are for inspection only and in the case of reduced fees, the owner shall provide all reasonable assistance to the inspector performing the work.

(3) *Adjusting Fees*—Weights which fail to meet the required tolerances may, upon the written request of the owner or his authorized agent, be adjusted by the inspector if such adjustment is confined to the addition or removal of small quantities of lead, and an adjusting fee is charged as follows:

Up to and including 10 pounds	5 cents each
Over 10 pounds	10 cents each

Weighing Machines

17. (a) Except as otherwise provided in this Section, the fees prescribed in Table 12 shall apply to all weighing machines.

TABLE 12

<i>Rated Capacity</i>	<i>Fees</i>
Up to and including 10 pounds	\$.25
Over 10 pounds and including 30 pounds .....	.50
Over 30 pounds and including 250 pounds .....	.75
Over 250 pounds and including 1,000 pounds	1.00
Over 1,000 pounds and including 2,000 pounds	1.50
Over 2,000 pounds and including 4,000 pounds	2.00
Over 4,000 pounds and including 6,000 pounds	2.50
Over 6,000 pounds and including 10,000 pounds	3.00
Over 10,000 pounds and including 15,000 pounds	3.50
Over 15,000 pounds and including 20,000 pounds	5.00
Over 20,000 pounds and including 40,000 pounds	6.00
Over 40,000 pounds and including 60,000 pounds	8.00
Over 60,000 pounds and including 80,000 pounds	10.00
Over 80,000 pounds and including 120,000 pounds	12.00
And for each additional 20,000 pounds	1.00

(b) The fee for statutory annual inspection of the weighing equipment in Western Country Grain Elevators shall be a single inclusive charge of \$7.50 for each elevator.

Inspections other than the statutory annual inspections on the above-mentioned grain elevators shall be charged at the rates applicable to scales generally.

The term "Country Elevator" applies to and includes Country Elevators licensed as such under the provisions of the Canada Grain Act.

(c) *Computing Scales*—The following fees shall apply to the following computing scales:

Weights and Measures Act—continued

TABLE 13

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including 2 pounds	\$.25
Over 2 pounds and including 10 pounds .....	.50
Over 10 pounds and including 25 pounds .....	.75
Over 25 pounds	1.00

- (d) Automatic Scales—The following fees shall apply to automatic scales, being machines which by automatic means repetitively weigh and discharge predetermined quantities:

TABLE 14

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including 2 pounds	\$.50
Over 2 pounds and including 10 pounds	1.00
Over 10 pounds and including 60 pounds	1.50
Over 60 pounds and including 360 pounds	2.00
Over 360 pounds and including 3,600 pounds	3.00
Over 3,600 pounds and including 6,000 pounds	4.00
Over 6,000 pounds and including 12,000 pounds	5.00

For automatic scales up to and including 100 pounds capacity, the above fees shall include inspection of the weights used in conjunction with them. On machines over 100 pounds capacity, additional charges shall be made for inspection of the weights in accordance with Table 11.

- (e) Railway Track Scales—The following fees shall apply to railway track scales:

TABLE 15

<i>Rated Capacity</i>	<i>With Railway Test Car</i>	<i>With Test Weights Only</i>
Up to and including 80 tons capacity....	\$12 00	\$15 00
Over 80 tons.....	15 00	20 00

Where test cars are not provided, expenses incurred in transporting test weights to make track scale inspections shall be charged as provided in Section 21.

- (f) Totalizing Machines—The following fees shall apply to the following totalizing machines:

- (i) Automatic Weighbridge or Platform type—

TABLE 16

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including 2,000 pounds.....	\$ 3 00
For each additional 2,000 pounds.....	0 50

- (ii) Automatic Belt Conveyor type—

TABLE 17

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including 500 pounds.....	\$ 5 00
Over 500 pounds.....	10 00

Weights and Measures Act—continued

The above fees are conditional upon the owners or users rendering all reasonable assistance to the officer performing the work of inspection.

- (g) As to weighing machines not included in Tables 12 to 17 inclusive, see Section 20.

Static Measures

18. The fees prescribed in this Section shall apply to the following static measures:

(a) Volume Measures—

TABLE 18

<i>Nominal Capacity</i>	<i>Fee</i>
Liquid—	
Up to and including 2 gallons.....	10 cents each
Over 2 gallons and including 5 gallons	15 cents each
Over 5 gallons and including 10 gallons	20 cents each
Dry—	
Up to and including 1 peck.....	10 cents each
Over 1 peck and including 1 bushel.....	20 cents each
Metric—	
Up to and including 20 litres.....	10 cents each

(b) Linear Measures—

TABLE 19

<i>Maximum Graduation</i>	<i>Fee</i>
Rigid—	
Up to and including 3 feet.....	10 cents each
Over 3 feet and including 10 feet.....	20 cents each
Flexible—	
Up to and including 36 feet.....	75 cents each
Over 36 feet and including 66 feet.....	\$1 00 each
Over 66 feet and including 100 feet	1 50 each
Metric—	
Up to and including 1 metre.....	5 cents each
Over 1 metre and including 2 metres	20 cents each
Over 2 metres and including 10 metres	75 cents each
Over 10 metres and including 20 metres	\$1 00 each

- (c) As to static measures not included in Tables 18 and 19, see Section 20.

Mechanical Measuring Devices

19. The fees prescribed in this Section shall apply to the following measuring devices:

- (a) Graduated measuring tanks, visible measuring bowls, and self-measuring pumps—

TABLE 20

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including $\frac{1}{2}$ gallon	\$ 0 50
Over $\frac{1}{2}$ gallon and including 2 gallons	1 00
Over 2 gallons and including 5 gallons	1 50
Over 5 gallons and including 10 gallons	2 00

Weights and Measures Act—continued

On combined units consisting of self-measuring pumps and graduated measuring bowls of any foregoing rated capacity, the fees for complete inspection shall be increased by 50 per cent.

Twin measuring bowls mounted on one base—

<i>Capacity</i>	<i>Fee</i>
5 gallon capacity	\$ 2 50
10 gallon capacity	4 00

The fee for adjusting any stop or indicator on any measuring device in this Table shall be 25 cents.

(b) Tanks of over 10 gallons capacity—

Tanks, whether mounted on a fixed base, portable or permanently mounted on a vehicle, shall be inspected at a fee of 1 cent per gallon of indicated capacity, with a minimum charge of \$2.00.

The checking of one gauge stick shall be included in the above amount.

The fee for the marking and inspection of an additional gauge stick shall be \$1.00.

Additional markers, where permitted by the regulations, shall be inspected at 50 cents per marker.

(c) Meters—

TABLE 21

<i>Rated Capacity</i>	<i>Fee</i>
Up to and including 5 gallons per minute	\$1.00
Over 5 g.p.m. and including 20 g.p.m.	1.50
Over 20 g.p.m. and including 250 g.p.m. (3" size)	2.50
Over 250 g.p.m.	3.50

(d) As to mechanical measuring devices not included in Tables 20 and 21, see Section 20.

Other Weighing or Measuring Devices

20. The fee for the inspection of any weighing or measuring device not indicated in Tables 11 to 21 inclusive shall be computed on the basis of \$2.00 per hour for the inspector's time, with a minimum charge of \$0.50 for inspection on any one premises. This scale of fee shall also apply to auxiliary attachments which require separate inspection, such as special indicating attachments or recording devices.

Cartage Charges

21. When inspections require transportation of heavy testing equipment, such as standard weights and test-tanks, an additional fee shall be charged sufficient to cover the proportionate cost of such transportation.

Delays

22. (a) When an inspector is delayed in the conduct of inspections in order that repairs or adjustments may be made to the machine under inspection or on account of lack of cooperation or assistance on the part of the owner or user, the inspector shall charge for such delay at the rate of \$1.00 per hour.

(b) If, in addition, the inspector is employing a vehicle for the transportation of test equipment necessary to the inspection, expenses incurred on this account by such delay shall be added to such charges.

Weights and Measures Act—continued*Adjustments*

23. When an inspector is engaged in adjustments requested by the owner or user, he shall charge for his time at the rate of \$2.00 per hour, except as otherwise provided in this Part.

PART V

STANDARDS

Dominion Standards

24. All inspections of weights, measures or measuring or weighing devices that are required by these regulations shall be related to and be governed by the appropriate standard in the following list:

The Dominion Standard of the Pound
 The Dominion Standard of the Troy Ounce
 The International Kilogramme
 The Dominion Standard of the Yard
 The International Metre

all as prescribed in the Weights and Measures Act.

Administrative Standards

25. (1) *Required standards*—In addition to the Parliamentary copies and the departmental standards designated in the Weights and Measures Act, there shall also be maintained the administrative standards named in Table 22 which shall be verified as prescribed in such Table.

TABLE 22

Administrative Standards

<i>Name of Standard</i>	<i>Location</i>	<i>Verification Required</i>	
		<i>by District Inspector</i>	<i>by Standards Laboratory</i>
Class A Departmental Reference Standards	Standards Laboratory	None	Yearly
Class A Local Reference Standards	District Offices	None	Every 5 yrs.
Class B Local Working Standards (for testing weights)	* District Offices	None	** 1 to 5 yrs.
Class C Local Working Standards (for testing measures, or measuring or weighing machines)	* District Offices	Yearly and as required	*** 1 to 5 yrs.

* For the use of Inspectors of Weights and Measures.

** Depending upon type and use; the period to be specified by the Director of Standards.

*** Working standards of volume having a capacity of 10 gallons or more, and those of weight of 50 pounds or more, shall be certified by District Inspectors in accordance with instructions of the Director of Standards.

Weights and Measures Act—continued

- (2) The Standards named in Table 22 shall be maintained for such multiples and fractions of the following denominations as may be required for the efficient administration of the Act:

The pound	The yard	The gallon
The troy ounce	The metre	The litre
The kilogramme		

These regulations shall not invalidate an inspection made by the use of a weight or measure not the property of His Majesty, if such weight or measure otherwise conforms to these regulations and has been calibrated by the inspector immediately prior to such use, by comparison with an appropriate reference standard.

26. Tolerances—The tolerances on administrative standards shall be as follows:

- (a) *Relation to Dominion Standards*—The tolerance on any standard, as hereinafter specified, shall be based on the appropriate Dominion Standard as listed in Section 24, regardless of the particular standard that may be used for its verification.
- (b) *Weights*—Standard weights shall conform to the requirements indicated in the appropriate columns of Tables 23, 24, 25 and 26, subject to the following requirements:
- Weights of Class A shall not be adjusted to a specified tolerance, but shall be calibrated and their error stated in a certificate to a maximum uncertainty not exceeding that shown in the Tables.
 - Weights of Class B shall be adjusted to fall within tolerances equal to those indicated in the Tables and, in addition, their error shall be stated in a certificate.
 - Weights of Class C shall be adjusted to fall within tolerances equal to those indicated in the Tables but their error shall not be stated.

TABLE 23

(Avoirdupois Standards)

Nominal Value	Class A Maximum Uncertainty of Calibration	Class B Tolerance	Class C Tolerance
Above 50 pounds	.....	.....	0.01%
50 " " " " " "	0.5 grain	5 grains	20 grains
20 " " " " " "	0.3 " " " " " "	3 " " " " " "	12 " " " " " "
10 " " " " " "	0.2 " " " " " "	2 " " " " " "	8 " " " " " "
5 " " " " " "	0.15 " " " " " "	2 " " " " " "	8 " " " " " "
2 " " " " " "	0.10 " " " " " "	1.0 " " " " " "	4 " " " " " "
1 pound	0.10 " " " " " "	0.5 " " " " " "	1.5 grain
8 ounces	0.10 " " " " " "	0.5 " " " " " "	1.5 " " " " " "
4 " " " " " "	0.05 " " " " " "	0.3 " " " " " "	0.8 " " " " " "
3 " " " " " "	0.05 " " " " " "	0.2 " " " " " "	0.6 " " " " " "
2 " " " " " "	0.05 " " " " " "	0.2 " " " " " "	0.5 " " " " " "
1 ounce	0.05 " " " " " "	0.1 " " " " " "	0.3 " " " " " "
8 drams	0.03 " " " " " "	0.08 " " " " " "	0.2 " " " " " "
4 " " " " " "	0.02 " " " " " "	0.05 " " " " " "	0.1 " " " " " "
2 " " " " " "	0.02 " " " " " "	0.05 " " " " " "	0.1 " " " " " "
1 dram	0.02 " " " " " "	0.05 " " " " " "	0.1 " " " " " "
$\frac{1}{2}$ " " " " " "	0.02 " " " " " "	0.05 " " " " " "	0.1 " " " " " "

Iron test weights of 50 pounds or more may exceed their nominal value by double the tolerances prescribed for Class C weights.

Weights and Measures Act—continued

TABLE 24

(Grain Standards)

Nominal Value		Class A Maximum Uncertainty of Calibration		Class B Tolerance	
5,000	grains	0.05	grain	0.10	grain
2,000	"	0.05	"	0.10	"
1,000	"	0.04	"	0.08	"
500	"	0.035	"	0.07	"
200	"	0.03	"	0.05	"
100	"	0.02	"	0.04	"
50	"	0.015	"	0.025	"
20	"	0.005	"	0.010	"
10	"	0.003	"	0.006	"
5	"	0.0025	"	0.005	"
2	"	0.0015	"	0.003	"
1	grain	0.0015	"	0.003	"
0.5	"	0.001	"	0.002	"
0.2	"	0.001	"	0.002	"
0.1	"	0.001	"	0.002	"
0.05	"	0.001	"	0.002	"
0.02	"	0.001	"	0.0015	"
0.01	"	0.001	"	0.0015	"

TABLE 25

(Troy Standards)

Nominal Value		Class A Maximum Uncertainty of Calibration		Class B Tolerance	
1,000	ounces	0.6	grain	4.0	grains
500	"	0.2	"	3.0	"
200	"	0.12	"	1.5	grain
100	"	0.10	"	1.0	"
50	"	0.10	"	1.0	"
20	"	0.06	"	0.35	"
10	"	0.05	"	0.3	"
5	"	0.03	"	0.2	"
2	"	0.02	"	0.1	"
1	ounce	0.017	"	0.1	"
0.5	"	0.015	"	0.07	"
0.2	"	0.013	"	0.05	"
0.1	"	0.012	"	0.04	"
0.05	"	0.011	"	0.025	"
0.02	"	0.010	"	0.020	"
0.01	"	0.008	"	0.017	"
0.005	"	0.007	"	0.015	"
0.002	"	0.006	"	0.010	"
0.001	"	0.005	"	0.008	"

Weights and Measures Act—continued

TABLE 26

(Metric Standards of Weight)

Nominal Value	Class A Maximum Uncertainty of Calibration	Class B Tolerance	Class C Tolerance
20 Kilograms	30 milligrams	300 milligrams	1,000 milligrams
10 " "	20 " "	200 " "	700 " "
5 " "	15 " "	150 " "	500 " "
2 " "	10 " "	100 " "	350 " "
1 kilogram	8 " "	80 " "	250 " "
500 grams	5 " "	50 " "	150 " "
200 " "	3.5 " "	20 " "	75 " "
100 " "	2.5 " "	15 " "	50 " "
50 " "	1.0 milligram	5 " "	25 " "
20 " "	0.5 " "	3 " "	15 " "
10 " "	0.5 " "	3 " "	10 " "
5 " "	0.5 " "	2 " "	8 " "
2 " "	0.2 " "	1.0 milligram	4 " "
1 gram	0.10 " "	0.8 " "	3 " "
500 milligrams	0.05 " "	0.8 " "	2 " "
200 " "	0.05 " "	0.5 " "	1.0 milligram
100 " "	0.05 " "	0.3 " "	0.7 " "
50 " "	0.05 " "	0.2 " "	0.3 " "
20 " "	0.04 " "	0.08 " "	0.2 " "
10 " "	0.04 " "	0.07 " "	0.1 " "
5 " "	0.03 " "	0.05 " "	0.1 " "
2 " "	0.01 " "	0.02 " "	0.04 " "
1 milligram	0.01 " "	0.02 " "	0.04 " "

(c) *Measures of Length*—standards of length shall conform to the requirements indicated in the appropriate columns of Tables 27 and 28.

TABLE 27

(Standards Based on the Yard)

Nominal Value	Class A Tolerance	Class B Tolerance
100 feet	0.05 inches	0.15 inches
50 " "	0.010 " "	0.10 " "
10 " "	0.005 " "	0.05 " "
6 " "	0.005 " "	0.05 " "
3 " "	0.002 " "	0.025 " "
2 " "	0.002 " "	0.025 " "
1 foot	0.002 " "	0.02 " "
6 inches	0.001 " "	0.005 " "

TABLE 28

(Metric Standards of Length)

Nominal Value	Class A Tolerance	Class B Tolerance
20 metres	0.5 millimetres	5 millimetres
10 " "	0.3 " "	3 " "
2 " "	0.15 " "	1.5 " "
1 metre	0.05 " "	0.7 " "
0.1 " "	0.02 " "	0.08 " "
0.01 " "	0.02 " "	0.06 " "

Weights and Measures Act—continued

- (d) *Measures of Area*—no specific tolerances are prescribed for standards of area but any template designed for calibration of an area-measuring machine shall have the maximum uncertainty of its measurement inscribed upon it and upon any laboratory certificate that accompanies it.
- (e) *Measures of Volume*—standards of volume shall conform to the requirements indicated in the appropriate columns of Tables 29 and 30.

TABLE 29
(Standards Based on the Gallon)

Nominal Value	Class A Tolerance	Class C Tolerance
Over 5 gallons	0.05%	0.1%
5 gallons	0.4 fluid ounces	0.8 fluid ounces
1 gallon	0.15 “ “	0.3 “ “
1 quart	0.05 “ “	0.1 “ “
1 pint	0.03 “ “	0.06 “ “
$\frac{1}{2}$ pint	0.02 “ “	0.05 “ “
5 fluid ounces	*	0.03 “ “
2 “ “	*	0.02 “ “
1 “ ounce	*	0.015 “ “
0.5 “ “	*	0.01 “ “
0.2 “ “	*	0.005 “ “
0.1 “ “	*	0.003 “ “

* Class A standards of 5 fluid ounces or less shall be verified solely by weight in the Standards Laboratory, Ottawa.

TABLE 30
(Metric Standards of Volume)

Nominal Value	Class A Tolerance	Class C Tolerance
25 litres	10.0 millilitres	25.0 millilitres
10 “	5.0 “	15.0 “
5 “	3.0 “	10.0 “
2 “	2.0 “	4.5 “
1 litre	1.0 “	2.5 “
500 millilitres	0.7 “	1.5 “
200 “	0.5 “	1.0 “
100 “	* “	0.6 “
50 “	* “	0.5 “
20 “	* “	0.2 “
10 “	* “	0.15 “

*Class A standards of 100 millilitres or less shall be verified solely by weight in the Standards Laboratory, Ottawa.

PART VI

WEIGHT AND MEASURE OF COMMODITIES

27. When any article is weighed or measured by a vendor at the time of sale and in the presence of the purchaser, the weight or measure, as the case may be, shall not be deemed to be in deficiency if it is not less than the declared quantity by more than the tolerance prescribed in these regulations for the weighing or measuring device actually used. Furthermore, the gross weight of an article so weighed in a package or wrapper shall be deemed to be the net weight of the article if the weight of the package or

Weights and Measures Act—continued

wrapper does not exceed a tolerance of one per cent of such gross weight or one ounce avoirdupois, whichever is the lesser, but compensation in weight shall be made by the vendor for the amount by which the package or wrapper exceeds such tolerance.

28. When any article is weighed or measured otherwise than in the presence of the purchaser for delivery to a purchaser in a package or container, the weight or measure, as the case may be, shall not be deemed to be in deficiency if it is not less than the declared quantity by more than the tolerances prescribed in these regulations for an appropriate weighing or measuring device of Class A; provided that the average net weight or volume in any 30 of such packages or containers, selected at random, shall not be less than the declared quantity.

2. Special directions respecting gasoline gauge sticks

DEPARTMENT OF TRADE AND COMMERCE

It is apparent that the provisions of Sections 3 and 4 of the Regulations respecting Weights and Measures established by Order in Council P.C. 3459 of August 9, 1948, regarding Class B devices, and the provisions of clause (a) of subsection (4) of Section 14 of such Regulations, should not apply to the undermentioned gauge sticks or to tanks for measuring petroleum products if the undermentioned gauge sticks are used for such measurement. Therefore, under powers conferred by subsection (6) of Section 7 of such Regulations, the following special directions shall apply:

1. A gauge stick which conforms to the requirements of these directions may be used in the measurement for sale of petroleum products from measuring tanks without being subject to mutual agreement between buyer and seller.

2. The gauge stick shall be of hardwood one inch square, may be used for not more than four tanks carried by the same truck and shall be marked as follows:

- (a) for a tank having a nominal capacity of 200 gallons or less, one face of the stick shall be graduated into divisions each of which shall indicate a quantity of 25 gallons or more;
- (b) for a tank having a nominal capacity of over 200 gallons and not over 400 gallons, one face of the stick shall be graduated into divisions indicating the following quantities:
 - (i) the upper or upper two divisions and the lower or lower two divisions shall each indicate a quantity of 25 gallons or more;
 - (ii) all remaining divisions shall each indicate a quantity of 50 gallons or more;
- (c) for a tank having a nominal capacity of over 400 gallons, one face of the stick shall be graduated into divisions each of which shall indicate a quantity of 50 gallons or more.

3. The gauge stick shall be equipped with an adjustable metal liquid level indicator of a design approved by the Director of Standards. This indicator, before delivery of any quantity from a measuring tank, shall be set at the graduation mark representing that quantity and in no case shall it be set except at a graduation mark.

Dated at Ottawa, April 28, 1949.

JAS. A. MACKINNON,
Acting Minister of Trade and Commerce.

Weights and Measures Act—concluded**3. Special directions respecting certain ice scales**

DEPARTMENT OF TRADE AND COMMERCE

It is apparent that the tolerance requirements of the Regulations respecting Weights and Measures, established by Order in Council P.C. 3459, of August 9, 1948, will prevent the use of dead load or suspension spring scales in the selling of ice. Therefore, under the powers conferred by subsection (6) of Section 7 of the said Regulations, the following special directions shall apply:

1. Dead load or suspension spring scales which conform to the following requirements may be used in trade for the sale of ice only:

- (a) such scales shall, in addition to the marking requirements required by Section 11 of the aforementioned Regulations, be clearly marked "Ice Scale" by die stamping, engraving, embossing or other equally permanent means in such manner as to be always visible to the user;
- (b) such scales shall conform to the following table in respect of rated capacity, indication of weight, and permissible tolerance:

<i>Rated Capacity</i>	<i>Minimum Weight per Graduation</i>	<i>Minimum Spacing of Graduations</i>	<i>Per cent Tolerance</i>
50 lbs.	$\frac{1}{2}$ lb.	$\frac{1}{32}$ "	Up to 100 lbs.— 1 per cent of rated capacity
100 lbs.	1 lb.	$\frac{1}{32}$ "	Over 100 lbs.— $\frac{1}{2}$ of 1 per cent of rated capacity
200 lbs.	2 lbs.	$\frac{1}{32}$ "	
300 lbs.	5 lbs.	$\frac{3}{64}$ "	
400 lbs.	5 lbs.	$\frac{3}{64}$ "	
500 lbs.	5 lbs.	$\frac{3}{64}$ "	

- (c) the extremity of the index pointer shall meet but not overlap the weight graduations and shall be reduced to a sufficiently fine point to give a clear indication of the weight;
- (d) any new prototype or model of such scales shall be submitted by the manufacturer or importer thereof to the Director of Standards for testing prior to use.

2. Except as provided in these directions, all scales referred to in paragraph 1 shall be subject to the above-mentioned Regulations as to inspection, stamping or otherwise.

Dated at Ottawa, April 28, 1949.

JAS. A. MACKINNON,
Acting Minister of Trade and Commerce.

WHEAT AND GRAIN

See also GRAIN (Canada Grain Act; Grain Futures Act, 1939);
GRAINS AND MILL FEEDS; INLAND WATER FREIGHT RATES ACT.

CANADIAN WHEAT BOARD ACT. (1935, c. 53)

1. *Rapeseed and sunflower seed.*
2. *Sum payable for Number One Manitoba Northern Wheat.*
3. *Canadian Wheat Board Regulations.*
4. *Producer's certificate for wheat.*
5. *Producer's certificate for oats or barley.*
6. *Sum payable for wheat other than Grade No. 1, Manitoba Northern.*
7. *Sum payable for additional grades of oats and barley.*

1. Regulations respecting rapeseed and sunflower seed

P.C. 3717

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 25th day of August, 1948.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the Minister of Trade and Commerce reports that it is deemed necessary and advisable that The Canadian Wheat Board as an agent of His Majesty in the right of Canada be empowered to buy rapeseed and sunflower seed at a price which will assure that producers in Western Canada will be continuously offered a price of six cents per pound for rapeseed and sunflower seed of the grades hereinafter referred to, basis delivery points named by the said Board;

AND WHEREAS authority for the said Board to buy rapeseed and sunflower seed for the said purpose has been granted by The Appropriation Act, No. 4, 1947-48, Vote No. 887, Statutes of Canada, 1947-48, chapter 78:

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and pursuant to the authority conferred by The Canadian Wheat Board Act, 1935, 25-26 George V, chapter 53, is pleased to make and doth hereby make the following Regulations:

REGULATIONS

1. In these Regulations, unless the context otherwise requires,
 - (a) "sunflower seed" means sunflower seed, grown in the designated area;
 - (b) "rapeseed" means rapeseed, grown in the designated area;
 - (c) other words and expressions used shall be given the same meaning as is respectively accorded to such words and expressions when used in The Canadian Wheat Board Act, 1935.
2. The Canadian Wheat Board is hereby authorized and empowered, as an agent of His Majesty in the right of Canada,
 - (a) to buy sunflower seed at a price per pound which will assure that producers of sunflower seed in Western Canada will be continuously offered the following prices per pound for sunflower seed, basis delivery points named by the Board.

Canadian Wheat Board Act—continued

Number One Canada Western (Sunrise) Sunflower Seed—Six Cents.

and such prices for each other grade or variety of sunflower seed as in the opinion of the Board from time to time brings such grade or variety into proper price relationship with the grade and variety of sunflower seed hereinbefore named.

- (b) to buy rapeseed at a price per pound which will assure that producers of rapeseed in Western Canada will be continuously offered a price of six cents per pound, basis delivery points named by the Board for rapeseed in reasonably clean condition, moisture content not exceeding limits to be determined by the Board, and such price for rapeseed of other quality or condition as in the opinion of the Board from time to time brings such rapeseed into proper price relationship with rapeseed of the quality and condition hereinbefore described.

3. (1) It shall be the duty of the Board to buy all sunflower seed and rapeseed offered by the producers thereof for sale to the Board from time to time in accordance with the provisions of section two hereof and the Board shall sell and dispose of from time to time, at such prices as it may consider reasonable, all sunflower seed or rapeseed acquired by it.

(2) The Board shall make the purchases of sunflower seed and rapeseed authorized by these Regulations as agent of His Majesty in the right of Canada and out of monies appropriated by Parliament and shall pay to the Receiver General of Canada the net proceeds of all sales of sunflower seed and rapeseed after deduction therefrom of all expenses of the Board incurred in connection with the operations of the Board attributable to sunflower seed and rapeseed.

4. For the purposes of these Regulations, the Board may

- (a) pay elevator or other agents of the Board, commission, storage, or other charges, remuneration or compensation, as may be agreed upon, subject to any provisions relating thereto of The Canada Grain Act, or any statute or law;
- (b) enter into contracts or agreements of any kind and with any person whatsoever with respect to the purchase, sale, handling, storage, transportation, or insurance of sunflower seed or rapeseed;
- (c) employ such officers, clerks and employees as may be necessary for the administration of these Regulations.

5. These Regulations shall expire on the thirty-first day of July, nineteen hundred and forty-nine subject to the provisions of Section 19 of the Interpretation Act which is hereby made applicable hereto as if the said Regulations were revoked on the said thirty-first day of July, nineteen hundred and forty-nine.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canadian Wheat Board Act—continued

2. Regulations *re* sum payable for Number One Manitoba Northern Wheat

P.C. 919

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 24th day of February, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS the sum certain payable to producers selling and delivering wheat of the grade Number One Manitoba Northern produced in the designated area to the Canadian Wheat Board is \$1.55 per bushel, basis in store Fort William/Port Arthur or Vancouver;

AND WHEREAS it is provided by paragraph (b) of subsection (1) of section 21 of the Canadian Wheat Board Act that the Canadian Wheat Board do pay to producers selling and delivering wheat produced in the designated area to the Board at the time of delivery or at any time thereafter as may be agreed upon a sum certain per bushel, basis in store Fort William/Port Arthur or Vancouver, to be fixed from time to time by regulation of the Governor in Council in respect of wheat of the grade Number One Manitoba Northern;

AND WHEREAS it is further provided by the said paragraph that where the Governor in Council increases during a pool period the sum certain payable to producers in respect of wheat of the grade Number One Manitoba Northern, the Board shall pay to any person the amount of such increase in respect of each bushel of wheat produced and sold in the designated area and delivered by him as a producer to the Board during the same pool period prior to the day on which such increase becomes effective;

AND WHEREAS it is advisable to increase the said sum certain from \$1.55 per bushel on the said basis to \$1.75 per bushel on the same basis;

NOW THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce, and under and by virtue of the powers conferred by the Canadian Wheat Board Act, 1935, and amendments thereto, is pleased to make and doth hereby make and establish the following regulations, effective April 1, 1949:

REGULATIONS

1. In these Regulations unless the context otherwise requires words and expressions used shall be given the same meaning as is respectively accorded to such words and expressions when used in the Canadian Wheat Board Act, 1935 as amended.

2. The Canadian Wheat Board is hereby empowered to pay to producers selling and delivering wheat of the grade Number One Manitoba Northern produced in the designated area to the Board a sum certain which is hereby fixed in respect of wheat of the said grade at \$1.75 per bushel, basis in store Fort William/Port Arthur or Vancouver.

3. The Canadian Wheat Board shall pay to any person the sum of twenty cents for each bushel of wheat produced in the designated area sold and delivered by him as a producer to the Board on or after the first day of August, 1945, but before the first day of April, 1949.

N. A. ROBERTSON,
Clerk of the Privy Council.

Canadian Wheat Board Act—continued**3. The Canadian Wheat Board Regulations**

P.C. 3713

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 20th day of July, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and under and by virtue of the powers conferred by The Canadian Wheat Board Act, 1935, is pleased to order as follows:

1. The Canadian Wheat Board Regulations, made by Order in Council P.C. 3376 of 28th July, 1948, as amended, are hereby revoked, effective August 1, 1949; and

2. The annexed regulations entitled "The Canadian Wheat Board Regulations" are hereby made and established, effective August 1, 1949, in substitution for the regulations hereby revoked.

N. A. ROBERTSON,
Clerk of the Privy Council.

THE CANADIAN WHEAT BOARD REGULATIONS

1. These regulations may be cited as the "Canadian Wheat Board Regulations".

2. In these regulations and any order made pursuant to these regulations unless the context otherwise requires

- (a) "Act" means—The Canadian Wheat Board Act 1935 and amendments thereto.
- (b) "dealer" means any elevator, mill or feed dealer licensed under the provisions of the Canada Grain Act or licensed by The Canadian Wheat Board; and
- (c) other words and expressions used shall be given the same meaning as is respectively accorded to such words and expressions when used in the Act.

PART I**ISSUE OF PERMIT BOOKS**

3. (1) A producer may obtain a blank permit book from an elevator agent.

(2) The producer shall enter in the permit book the name of the delivery point at which he proposes to deliver grain and shall complete before a Municipal Secretary or other person authorized to administer oaths, the two statutory declarations contained at the front of the permit book accurately describing in the declaration the lands on which the grain which he proposes to deliver is to be or has been produced, and shall return the permit book to the elevator agent.

Canadian Wheat Board Act—continued

(3) Both such statutory declarations shall be completed and signed in ink or by indelible pencil by the producer making the declaration and by the person before whom the declaration is made.

(4) When a producer returns a permit book to an elevator agent with the delivery point named and the declarations completed in accordance with this section, unless otherwise directed by the Board the elevator agent shall apply to the Board on forms supplied by it for an order fixing the specified acreage for the lands described in the permit book and shall attach and forward with such application the first statutory declaration contained in the permit book.

(5) Unless otherwise directed by the Board, the elevator agent shall retain custody of the permit book until the Board has fixed the said specified acreage and notified him thereof and no grain produced on the lands described in such permit book shall be delivered or received until the Board has so notified the agent and the specified acreage has been entered in the book.

(6) Upon being notified by the Board of the specified acreage for the lands described in a permit book the elevator agent shall enter this figure in the permit book in the proper place and return the permit book to the producer.

(7) The second statutory declaration of the producer shall be retained in the permit book and no person shall remove it from the book.

4. (1) No permit book shall be issued naming a delivery point where there is no licensed country elevator.

(2) The Board may change the delivery point named in a permit book if the change is deemed advisable by the Board.

PART II

DELIVERY OF WHEAT, OATS OR BARLEY BY NON-PRODUCERS

5. (1) With the permission of the Board, persons within the designated area who are the owners of wheat, oats or barley in respect of which they are not producers may deliver such grain to elevators, mills, warehouses or railway cars and the Board may refuse or grant such permission upon such terms and conditions as it deems proper.

(2) The Board shall pay to persons selling and delivering wheat, oats or barley to it pursuant to this section, a sum equal to the initial payment payable pursuant to section 21 and section 29A of the Act and the regulations made thereunder for wheat, oats or barley of the same grade, but shall not issue a Producer's certificate in respect of such grain.

TRANSFER OF PRODUCER'S CERTIFICATES

6. (1) The Board may transfer any certificate issued by it pursuant to Part III of the Act:

- (a) if transfer of the certificate is requested by the executor or administrator of the estate of the deceased producer named in the certificate to such executor or administrator or to beneficiaries or heirs at law or creditors entitled to share in the estate of the deceased; or

Canadian Wheat Board Act—continued

(b) if transfer of the certificate to the actual producer of the wheat, oats, or barley referred to in the certificate is requested by the producer, provided that the producer is a vendor or a mortgagee and has received such certificate as collateral security to a claim against the actual producer.

(2) Except as provided in this section, no certificate shall be transferred to any person who is not a producer.

(3) The Board may require, as a condition precedent to the transfer of any certificate, that it be furnished with such evidence as it deems necessary.

DOMESTIC WHEAT

7. (1) The Board shall sell wheat to millers, processors, manufacturers, dealers and others hereinafter referred to as purchasers, for domestic requirements in Canada other than the production of alcohol at and for the price of two dollars per bushel for wheat of the grade Number One Manitoba Northern, basis in store Fort William/Port Arthur or Vancouver, and in the case of each other grade at and for such price as in the opinion of the Board brings each such grade into proper price relationship with the grade Number One Manitoba Northern, plus appropriate carrying charges and additional forwarding and diversion charges as may be determined by the Board from time to time.

LICENCES

8. The Board may grant licences for export from or import into Canada or for the purchase, sale or delivery outside of Canada of wheat or wheat products, oats or oat products, and barley or barley products upon such terms and conditions as the Board deems advisable, including a requirement for recovery from the applicant by the Board or by any other person specified by the Board of a sum which, in the opinion of the Board, represents the pecuniary benefit inuring to the applicant pursuant to the granting of the licence arising solely by reason of the prohibition of imports or exports of wheat or wheat products, oats or oat products, or barley or barley products without a licence and then existing differences between prices of wheat or wheat products, oats or oat products or barley or barley products inside and outside of Canada.

9. The Board may grant licences for the transporting from one province to another province or for the sale or delivery anywhere in Canada of wheat or wheat products, oats or oat products, and barley or barley products, and may prescribe the terms and conditions upon which such licences may be granted or the terms or conditions of the permission granted in such licences, provided that no fee shall be charged for such licence.

PRODUCTS

10. (1) The following substances and materials are hereby designated as "wheat products" for the purposes of the Act: Wheat flour, breakfast foods, cereals, biscuits, bread, macaroni, spaghetti, vermicelli, noodles, animal and poultry feeds, wheat starch and, without limiting the generality of the foregoing, all other products, manufactured articles, materials or substances containing wheat in any form to an extent greater than twenty-five per cent by weight.

Canadian Wheat Board Act—continued

(2) Notwithstanding anything contained in subsection one of this section a material, substance or manufactured article shall not be deemed to be a wheat product unless it contains wheat in any form to an extent greater than twenty-five per cent by weight.

11. (1) The following substances and materials are hereby designated as "oat products" for the purposes of the Act: rolled oats, oatmeal, oat groats, ground oats, crimped oats, crushed oats, oat feed and oat flour and, without limiting the generality of the foregoing, all other products, manufactured articles, materials or substances containing oats in any form to an extent greater than twenty-five per cent by weight.

(2) Notwithstanding anything contained in subsection one of this section, a material, substance or manufactured article shall not be deemed to be an oat product unless it contains oats in any form to an extent greater than twenty-five per cent by weight.

12. (1) The following substances and materials are hereby designated as "barley products" for the purposes of the Act: Barley malt, malt syrup, pot barley, pearled barley, ground barley, crimped barley, barley sprouts, barley meal, barley feed, barley flour and, without limiting the generality of the foregoing, all other products, manufactured articles, materials or substances containing barley in any form to an extent greater than twenty-five per cent by weight.

(2) Notwithstanding anything contained in subsection one of this section, a material, substance or manufactured article shall not be deemed to be a barley product unless it contains barley in any form to an extent greater than twenty-five per cent by weight.

PART III

OATS AND BARLEY

13. (1) Part III and Part IV of the Act are hereby extended to oats and barley for the crop year commencing on the first day of August, 1949, and ending on the thirty-first day of July, 1950.

(2) The Board shall pay to producers selling and delivering oats produced in the designated area to the Board the sum certain of sixty-five cents per bushel basis in store Fort William or Port Arthur in respect of the grade No. 2 Canada Western.

(3) The Board shall pay to producers selling and delivering barley produced in the designated area to the Board the sum certain of ninety-three cents per bushel basis in store Fort William or Port Arthur in respect of the grade No. 3 Canada Western Six-Row.

(4) For the purposes of Part III of the Act the pool period in respect of oats and barley shall be the crop year commencing on the first day of August, 1949, and ending on the thirty-first day of July, 1950.

14. (1) In this section "premium" means an amount paid or received for a special selection for quality within any grade of oats or barley.

(2) Any agent of the Board when authorized by the Board may in respect of oats or barley purchased or sold by him for the account of the Board, pay and collect premiums, on behalf of any person other than the Board.

15. This Part shall come into force on the first day of August, 1949.

Canadian Wheat Board Act—continued**PART IV****FLAXSEED**

16. (1) The Canadian Wheat Board is hereby empowered and directed to buy all flaxseed produced in the designated area offered by a producer for sale and delivery to the Board at a country elevator or in a railway car in accordance with the provisions of this Act and the regulations and orders of the Board, and shall pay to producers selling and delivering flaxseed produced in the designated area to the Board, at the time of delivery or at any time thereafter as may be agreed on the sum of two dollar and fifty cents per bushel for flaxseed basis in store Fort William or Port Arthur in respect of flaxseed of the grade No. 1 Canada Western and such sum for each other grade of flaxseed as in the opinion of the Board from time to time bring such grade into proper price relationship with the grade of flaxseed herebefore named.

(2) The Board shall issue to a producer who sells and delivers flaxseed produced in the designated area to the Board, a certificate indicating the number of bushels purchased and delivered and the grade thereof, which certificate shall not be transferable or assignable and shall entitle the producer named therein to such share in the distribution of the surplus, if any, arising from the operations of the Board with regard to flaxseed produced in the designated area sold and delivered to the Board during the crop year commencing on the first day of August, 1949, as the Governor in Council on the recommendation of the Board may by regulation determine.

17. (1) As soon as the Board receives payment in full for all flaxseed produced in the designated area sold and delivered to it by producers during the crop year commencing the first day of August, 1949, there shall be deducted from the total amount received therefor, all monies disbursed by or on behalf of the Board by way of payment in respect of the said flaxseed and by way of expenses incurred in connection with the operations of the Board attributable to the said flaxseed, including the remuneration, allowances, travelling and living expenses of the Commissioners, members of the Advisory Committee and the officers, clerks and employees of the Board, and the estimated expenses of distribution of the balance mentioned in subsection two of this section, as estimated by the Board.

(2) The Board shall distribute the balance remaining in its account in respect of flaxseed produced in the designated area purchased by it from producers during the crop year commencing on the first day of August, 1949, after making deductions therefrom provided in subsection one of this section, among holders of certificates issued by the Board pursuant to this part during the said crop year by paying to the person named therein, the appropriate sum determined by the Governor in Council as provided in these regulations for each bushel of flaxseed referred to therein according to grade.

PART V**GENERAL**

18. These regulations shall come into operation and be of full force and effect on and after the first day of August, nineteen hundred and forty-nine and shall cease to have any force and effect on and after the first day

Canadian Wheat Board Act—continued

of August nineteen hundred and fifty, provided that for the purpose of section nineteen of the Interpretation Act these regulations shall be deemed to have been revoked on the said first day of August, nineteen hundred and fifty and the said section nineteen shall be applicable in respect of these regulations notwithstanding that they cease to have any operation or to be of any further force and effect on that date as if they were so revoked.

4. Prescribing producer's certificate for wheat

P.C. 3993

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 10th day of AUGUST, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and under and by virtue of the powers conferred by section 24 of The Canadian Wheat Board Act, 1935, is pleased to prescribe and doth hereby prescribe the form of certificate hereto attached as the form of certificate to be issued by the Canadian Wheat Board pursuant to section 21 of the said Act to producers delivering and selling wheat to the Board during the crop year commencing on the first day of August, 1949, and ending on the thirty-first day of July, 1950.

N. A. ROBERTSON,

Clerk of the Privy Council.

Canadian Wheat Board Act—continued

5. Prescribing producer's certificate for oats or barley

P.C. 3994

AT THE GOVERNMENT HOUSE AT OTTAWA

WEDNESDAY, the 10th day of August, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and under and by virtue of the powers conferred by The Canadian Wheat Board Act, 1935, is pleased to prescribe and doth hereby prescribe the form of certificate hereto attached as the form of certificate to be issued by the Canadian Wheat Board pursuant to section 21 of the said Act to producers delivering and selling oats or barley to the Board during the crop year commencing on the first day of August, 1949, and ending on the thirty-first day of July, 1950.

N. A. ROBERTSON,

Clerk of the Privy Council.

Canadian Wheat Board Act—continued

6. Fixing sum payable for wheat other than Grade No. 1,
Manitoba Northern

P.C. 4726

AT THE GOVERNMENT HOUSE AT OTTAWA

FRIDAY, the 16th day of September, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS paragraph (b) of subsection (1) of section 21 of The Canadian Wheat Board Act, 1935, requires the Canadian Wheat Board to pay to producers selling and delivering wheat produced in the designated area to the Board, at the time of delivery or at any time thereafter as may be agreed upon, a sum certain per bushel basis in store Fort William/Port Arthur or Vancouver to be fixed by regulation from time to time by the Governor General in Council in respect of wheat of the grade Number One Manitoba Northern and by the Board with the approval of the Governor General in Council in respect of each other grade of wheat;

AND WHEREAS by Order in Council P.C. 919 of the 24th day of February 1949 the Governor in Council has fixed the amount of the sum certain per bushel to be paid from time to time by the Canadian Wheat Board in respect of wheat of the grade Number One Manitoba Northern at one dollar and seventy-five cents per bushel, basis in store Fort William, Port Arthur or Vancouver to produce selling or delivering wheat of the said grade produced in the designated area to The Canadian Wheat Board during the period referred to in the said Order;

AND WHEREAS the Canadian Wheat Board pursuant to the powers conferred on it by The Canadian Wheat Board Act has duly fixed the sum certain payable on the said basis to producers selling and delivering wheat of grades other than Number One Manitoba Northern during the said period produced in the designated area to the Canadian Wheat Board which said sums were approved by Order in Council P.C. 1411 of the 25th day of March, 1949;

AND WHEREAS at a meeting of the said Board held in the City of Winnipeg on the 5th day of August, 1949, in accordance with the said Act, the following sums per bushel basis in store Fort William, Port Arthur or Vancouver were fixed by the said Board as the amount of the sums certain to be paid to producers delivering to the said Board wheat of the grades listed below during the period commencing on the 1st day of August, 1949 and expiring on the 31st day of July, 1950:

	<i>Payment per Bushel</i>
	<i>\$ c.</i>
No. 1 Hard.....	1.75
No. 1 Northern	1.75
No. 2 Northern.....	1.72
No. 3 Northern.....	1.70
No. 4 Northern.....	1.65
No. 5 Wheat.....	1.55

Canadian Wheat Board Act—continued

	<i>Payment per Bushel</i>
	\$ c.
No. 6 Wheat.....	1.51
Feed Wheat	1.49
No. 4 Special.....	1.65
No. 5 Special.....	1.55
No. 6 Special.....	1.51
No. 1 C. W. Amber Durum.....	1.75
No. 2 C. W. Amber Durum.....	1.72
No. 3 C. W. Amber Durum.....	1.70
No. 4 C. W. Amber Durum.....	1.65
No. 5 C. W. Amber Durum.....	1.55
No. 6 C. W. Amber Durum.....	1.51
No. 1 C. W. Garnet.....	1.70
No. 2 C. W. Garnet.....	1.68
No. 3 C.W. Garnet.....	1.66
No. 1 Alberta Red Winter.....	1.75
No. 2 Alberta Winter.....	1.74
No. 3 Alberta Winter.....	1.71
No. 4 Alberta Winter.....	1.67
No. 1 Mixed Wheat.....	1.56
No. 2 Mixed Wheat.....	1.51
No. 3 Mixed Wheat.....	1.54
No. 4 Mixed Wheat.....	1.51
No. 5 Mixed Wheat.....	1.56
No. 6 Mixed Wheat.....	1.51
No. 1 Mixed Grain.....	1.40
Tough 1 Hard.....	1.72
Tough 1 Northern.....	1.72
Tough 2 Northern.....	1.69
Tough 3 Northern.....	1.67
Tough 4 Northern.....	1.62
Tough 5 Wheat.....	1.52
Tough 6 Wheat.....	1.48
Tough Feed Wheat.....	1.46
Tough 4 Special.....	1.62
Tough 5 Special.....	1.52
Tough 6 Special.....	1.48
Tough 1 C.W. Amber Durum.....	1.72
Tough 2 C.W. Amber Durum.....	1.69
Tough 3 C.W. Amber Durum.....	1.67
Tough 4 C.W. Amber Durum.....	1.62
Tough 5 C.W. Amber Durum.....	1.52
Tough 6 C.W. Amber Durum.....	1.48
Tough 1 C.W. Garnet.....	1.67
Tough 2 C.W. Garnet.....	1.65
Tough 3 C.W. Garnet.....	1.63
Tough 1 Alberta Red Winter.....	1.72
Tough 2 Alberta Winter.....	1.71
Tough 3 Alberta Winter.....	1.68
Tough 4 Alberta Winter.....	1.64
Tough 1 Mixed Wheat.....	1.53
Tough 2 Mixed Wheat.....	1.48
Tough 3 Mixed Wheat.....	1.51
Tough 4 Mixed Wheat.....	1.48
Tough 5 Mixed Wheat.....	1.53
Tough 6 Mixed Wheat.....	1.48
Tough 1 Mixed Grain.....	1.37
Smutty 1 Northern.....	1.60
Smutty 2 Northern.....	1.57
Smutty 3 Northern.....	1.55
Smutty 4 Northern.....	1.50
Smutty 5 Wheat.....	1.46
Smutty 6 Wheat.....	1.42
Smutty Feed Wheat.....	1.40
Smutty 4 Special.....	1.50
Smutty 5 Special.....	1.46
Smutty 6 Special.....	1.42

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Smutty 1 C.W. Amber Durum.....	1.60
Smutty 2 C.W. Amber Durum.....	1.57
Smutty 3 C.W. Amber Durum.....	1.55
Smutty 4 C.W. Amber Durum.....	1.50
Smutty 5 C.W. Amber Durum.....	1.46
Smutty 6 C.W. Amber Durum.....	1.42
Smutty 1 C.W. Garnet.....	1.55
Smutty 2 C.W. Garnet.....	1.53
Smutty 3 C.W. Garnet.....	1.51
Smutty 1 Alberta Red Winter.....	1.60
Smutty 2 Alberta Winter.....	1.59
Smutty 3 Alberta Winter.....	1.56
Smutty 4 Alberta Winter.....	1.52
Smutty 1 Mixed Wheat.....	1.47
Smutty 2 Mixed Wheat.....	1.42
Smutty 3 Mixed Wheat.....	1.45
Smutty 4 Mixed Wheat.....	1.42
Smutty 5 Mixed Wheat.....	1.47
Smutty 6 Mixed Wheat.....	1.42
Smutty 1 Mixed Grain.....	1.31
Tough Smutty 1 Northern.....	1.57
Tough Smutty 2 Northern.....	1.54
Tough Smutty 3 Northern.....	1.52
Tough Smutty 4 Northern.....	1.47
Tough Smutty 5 Wheat.....	1.43
Tough Smutty 6 Wheat.....	1.39
Tough Smutty Feed Wheat.....	1.37
Tough Smutty 4 Special.....	1.47
Tough Smutty 5 Special.....	1.43
Tough Smutty 6 Special.....	1.39
Tough Smutty 1 C.W. Amber Durum.....	1.57
Tough Smutty 2 C.W. Amber Durum.....	1.54
Tough Smutty 3 C.W. Amber Durum.....	1.52
Tough Smutty 4 C.W. Amber Durum.....	1.47
Tough Smutty 5 C.W. Amber Durum.....	1.43
Tough Smutty 6 C.W. Amber Durum.....	1.39
Tough Smutty 1 C.W. Garnet.....	1.52
Tough Smutty 2 C.W. Garnet.....	1.50
Tough Smutty 3 C.W. Garnet.....	1.48
Tough Smutty 1 Alberta Red Winter.....	1.57
Tough Smutty 2 Alberta Winter.....	1.56
Tough Smutty 3 Alberta Winter.....	1.53
Tough Smutty 4 Alberta Winter.....	1.49
Tough Smutty 1 Mixed Wheat.....	1.44
Tough Smutty 2 Mixed Wheat.....	1.39
Tough Smutty 3 Mixed Wheat.....	1.42
Tough Smutty 4 Mixed Wheat.....	1.39
Tough Smutty 5 Mixed Wheat.....	1.44
Tough Smutty 6 Mixed Wheat.....	1.39
Tough Smutty 1 Mixed Grain.....	1.28
Rejected 1 Northern.....	1.64
Rejected 2 Northern.....	1.61
Rejected 3 Northern.....	1.59
Rejected 4 Northern.....	1.54
Rejected 5 Wheat.....	1.49
Rejected 6 Wheat.....	1.45
Rejected Feed Wheat.....	1.43
Rejected 4 Special.....	1.54
Rejected 5 Special.....	1.49
Rejected 6 Special.....	1.45
Rejected 1 C.W. Amber Durum.....	1.64
Rejected 2 C.W. Amber Durum.....	1.61
Rejected 3 C.W. Amber Durum.....	1.59
Rejected 4 C.W. Amber Durum.....	1.54
Rejected 5 C.W. Amber Durum.....	1.49
Rejected 6 C.W. Amber Durum.....	1.45

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Rejected 1 C.W. Garnet.....	1.59
Rejected 2 C.W. Garnet.....	1.57
Rejected 3 C.W. Garnet.....	1.55
Rejected 1 Alberta Red Winter.....	1.64
Rejected 2 Alberta Winter.....	1.63
Rejected 3 Alberta Winter.....	1.60
Rejected 4 Alberta Winter.....	1.56
Rejected 1 Mixed Wheat.....	1.50
Rejected 2 Mixed Wheat.....	1.45
Rejected 3 Mixed Wheat.....	1.48
Rejected 4 Mixed Wheat.....	1.45
Rejected 5 Mixed Wheat.....	1.50
Rejected 6 Mixed Wheat.....	1.45
Rejected 1 Mixed Grain.....	1.34
Tough Rejected 1 Northern.....	1.61
Tough Rejected 2 Northern.....	1.58
Tough Rejected 3 Northern.....	1.56
Tough Rejected 4 Northern.....	1.51
Tough Rejected 5 Wheat.....	1.46
Tough Rejected 6 Wheat.....	1.42
Tough Rejected Feed Wheat.....	1.40
Tough Rejected 4 Special.....	1.51
Tough Rejected 5 Special.....	1.46
Tough Rejected 6 Special.....	1.42
Tough Rejected 1 C.W. Amber Durum.....	1.61
Tough Rejected 2 C.W. Amber Durum.....	1.58
Tough Rejected 3 C.W. Amber Durum.....	1.56
Tough Rejected 4 C.W. Amber Durum.....	1.51
Tough Rejected 5 C.W. Amber Durum.....	1.46
Tough Rejected 6 C.W. Amber Durum.....	1.42
Tough Rejected 1 C.W. Garnet.....	1.56
Tough Rejected 2 C.W. Garnet.....	1.54
Tough Rejected 3 C.W. Garnet.....	1.52
Tough Rejected 1 Alberta Red Winter.....	1.61
Tough Rejected 2 Alberta Winter.....	1.60
Tough Rejected 3 Alberta Winter.....	1.57
Tough Rejected 4 Alberta Winter.....	1.53
Tough Rejected 1 Mixed Wheat.....	1.47
Tough Rejected 2 Mixed Wheat.....	1.42
Tough Rejected 3 Mixed Wheat.....	1.45
Tough Rejected 4 Mixed Wheat.....	1.42
Tough Rejected 5 Mixed Wheat.....	1.47
Tough Rejected 6 Mixed Wheat.....	1.42
Tough Rejected 1 Mixed Grain.....	1.31
Rejected a/c Sprouted 1 Northern.....	1.65
Rejected a/c Sprouted 2 Northern.....	1.62
Rejected a/c Sprouted 3 Northern.....	1.60
Rejected a/c Sprouted 4 Northern.....	1.55
Rejected a/c Sprouted 5 Wheat.....	1.48
Rejected a/c Sprouted 6 Wheat.....	1.44
Rejected a/c Sprouted Feed Wheat.....	1.42
Rejected a/c Sprouted 4 Special.....	1.55
Rejected a/c Sprouted 5 Special.....	1.48
Rejected a/c Sprouted 6 Special.....	1.44
Rejected a/c Sprouted 1 C.W. Amber Durum.....	1.65
Rejected a/c Sprouted 2 C.W. Amber Durum.....	1.62
Rejected a/c Sprouted 3 C.W. Amber Durum.....	1.60
Rejected a/c Sprouted 4 C.W. Amber Durum.....	1.55
Rejected a/c Sprouted 5 C.W. Amber Durum.....	1.48
Rejected a/c Sprouted 6 C.W. Amber Durum.....	1.44
Rejected a/c Sprouted 1 C.W. Garnet.....	1.60
Rejected a/c Sprouted 2 C.W. Garnet.....	1.58
Rejected a/c Sprouted 3 C.W. Garnet.....	1.56
Rejected a/c Sprouted 1 Alberta Red Winter.....	1.65
Rejected a/c Sprouted 2 Alberta Winter.....	1.64
Rejected a/c Sprouted 3 Alberta Winter.....	1.61

Canadian Wheat Board Act—continued

	Payment per Bushel
\$ c.	
Rejected a/c Sprouted 4 Alberta Winter.....	1.57
Rejected a/c Sprouted 1 Mixed Wheat.....	1.49
Rejected a/c Sprouted 2 Mixed Wheat.....	1.44
Rejected a/c Sprouted 3 Mixed Wheat.....	1.47
Rejected a/c Sprouted 4 Mixed Wheat.....	1.44
Rejected a/c Sprouted 5 Mixed Wheat.....	1.49
Rejected a/c Sprouted 6 Mixed Wheat.....	1.44
Rejected a/c Sprouted 1 Mixed Grain.....	1.33
Tough Rejected a/c Sprouted 1 Northern.....	1.62
Tough Rejected a/c Sprouted 2 Northern.....	1.59
Tough Rejected a/c Sprouted 3 Northern.....	1.57
Tough Rejected a/c Sprouted 4 Northern.....	1.52
Tough Rejected a/c Sprouted 5 Wheat.....	1.45
Tough Rejected a/c Sprouted 6 Wheat.....	1.41
Tough Rejected a/c Sprouted Feed Wheat.....	1.39
Tough Rejected a/c Sprouted 4 Special.....	1.52
Tough Rejected a/c Sprouted 5 Special.....	1.45
Tough Rejected a/c Sprouted 6 Special.....	1.41
Tough Rejected a/c Sprouted 1 C.W. Amber Durum.....	1.62
Tough Rejected a/c Sprouted 2 C.W. Amber Durum.....	1.59
Tough Rejected a/c Sprouted 3 C.W. Amber Durum.....	1.57
Tough Rejected a/c Sprouted 4 C.W. Amber Durum.....	1.52
Tough Rejected a/c Sprouted 5 C.W. Amber Durum.....	1.45
Tough Rejected a/c Sprouted 6 C.W. Amber Durum.....	1.41
Tough Rejected a/c Sprouted 1 C.W. Garnet.....	1.57
Tough Rejected a/c Sprouted 2 C.W. Garnet.....	1.55
Tough Rejected a/c Sprouted 3 C.W. Garnet.....	1.53
Tough Rejected a/c Sprouted 1 Alberta Red Winter.....	1.62
Tough Rejected a/c Sprouted 2 Alberta Winter.....	1.61
Tough Rejected a/c Sprouted 3 Alberta Winter.....	1.58
Tough Rejected a/c Sprouted 4 Alberta Winter.....	1.54
Tough Rejected a/c Sprouted 1 Mixed Wheat.....	1.46
Tough Rejected a/c Sprouted 2 Mixed Wheat.....	1.41
Tough Rejected a/c Sprouted 3 Mixed Wheat.....	1.44
Tough Rejected a/c Sprouted 4 Mixed Wheat.....	1.41
Tough Rejected a/c Sprouted 5 Mixed Wheat.....	1.46
Tough Rejected a/c Sprouted 6 Mixed Wheat.....	1.41
Tough Rejected a/c Sprouted 1 Mixed Grain.....	1.30
Smutty Rejected 1 Northern.....	1.56
Smutty Rejected 2 Northern.....	1.53
Smutty Rejected 3 Northern.....	1.51
Smutty Rejected 4 Northern.....	1.46
Smutty Rejected 5 Wheat.....	1.40
Smutty Rejected 6 Wheat.....	1.36
Smutty Rejected Feed Wheat.....	1.34
Smutty Rejected 4 Special.....	1.46
Smutty Rejected 5 Special.....	1.40
Smutty Rejected 6 Special.....	1.36
Smutty Rejected 1 C.W. Amber Durum.....	1.56
Smutty Rejected 2 C.W. Amber Durum.....	1.53
Smutty Rejected 3 C.W. Amber Durum.....	1.51
Smutty Rejected 4 C.W. Amber Durum.....	1.46
Smutty Rejected 5 C.W. Amber Durum.....	1.40
Smutty Rejected 6 C.W. Amber Durum.....	1.36
Smutty Rejected 1 C.W. Garnet.....	1.51
Smutty Rejected 2 C.W. Garnet.....	1.49
Smutty Rejected 3 C.W. Garnet.....	1.47
Smutty Rejected 1 Alberta Red Winter.....	1.56
Smutty Rejected 2 Alberta Winter.....	1.55
Smutty Rejected 3 Alberta Winter.....	1.52
Smutty Rejected 4 Alberta Winter.....	1.48
Smutty Rejected 1 Mixed Wheat.....	1.41
Smutty Rejected 2 Mixed Wheat.....	1.36
Smutty Rejected 3 Mixed Wheat.....	1.39
Smutty Rejected 4 Mixed Wheat.....	1.36
Smutty Rejected 5 Mixed Wheat.....	1.41

Canadian Wheat Board Act—continued

				Payment per Bushel
				\$ c.
Smutty	Rejected	6 Mixed	Wheat.....	1.36
Smutty	Rejected	1 Mixed	Grain.....	1.25
Tough	Smutty	Rejected	1 Northern.....	1.53
Tough	Smutty	Rejected	2 Northern.....	1.50
Tough	Smutty	Rejected	3 Northern.....	1.48
Tough	Smutty	Rejected	4 Northern.....	1.43
Tough	Smutty	Rejected	5 Wheat.....	1.37
Tough	Smutty	Rejected	6 Wheat.....	1.33
Tough	Smutty	Rejected	Feed Wheat.....	1.31
Tough	Smutty	Rejected	4 Special.....	1.43
Tough	Smutty	Rejected	5 Special.....	1.37
Tough	Smutty	Rejected	6 Special.....	1.33
Tough	Smutty	Rejected	1 C.W. Amber Durum.....	1.53
Tough	Smutty	Rejected	2 C.W. Amber Durum.....	1.50
Tough	Smutty	Rejected	3 C.W. Amber Durum.....	1.48
Tough	Smutty	Rejected	4 C.W. Amber Durum.....	1.43
Tough	Smutty	Rejected	5 C.W. Amber Durum.....	1.37
Tough	Smutty	Rejected	6 C.W. Amber Durum.....	1.33
Tough	Smutty	Rejected	1 C.W. Garnet.....	1.48
Tough	Smutty	Rejected	2 C.W. Garnet.....	1.46
Tough	Smutty	Rejected	3 C.W. Garnet.....	1.44
Tough	Smutty	Rejected	1 Alberta Red Winter.....	1.53
Tough	Smutty	Rejected	2 Alberta Winter.....	1.52
Tough	Smutty	Rejected	3 Alberta Winter.....	1.49
Tough	Smutty	Rejected	4 Alberta Winter.....	1.45
Tough	Smutty	Rejected	1 Mixed Wheat.....	1.38
Tough	Smutty	Rejected	2 Mixed Wheat.....	1.33
Tough	Smutty	Rejected	3 Mixed Wheat.....	1.36
Tough	Smutty	Rejected	4 Mixed Wheat.....	1.33
Tough	Smutty	Rejected	5 Mixed Wheat.....	1.38
Tough	Smutty	Rejected	6 Mixed Wheat.....	1.33
Tough	Smutty	Rejected	1 Mixed Grain.....	1.22
Rejected	Mixed	Heated	1 Northern.....	1.61
Rejected	Mixed	Heated	2 Northern.....	1.58
Rejected	Mixed	Heated	3 Northern.....	1.56
Rejected	Mixed	Heated	4 Northern.....	1.51
Rejected	Mixed	Heated	5 Wheat.....	1.46
Rejected	Mixed	Heated	6 Wheat.....	1.42
Rejected	Mixed	Heated	Feed Wheat.....	1.40
Rejected	Mixed	Heated	4 Special.....	1.51
Rejected	Mixed	Heated	5 Special.....	1.46
Rejected	Mixed	Heated	6 Special.....	1.42
Rejected	Mixed	Heated	1 C.W. Amber Durum.....	1.61
Rejected	Mixed	Heated	2 C.W. Amber Durum.....	1.58
Rejected	Mixed	Heated	3 C.W. Amber Durum.....	1.56
Rejected	Mixed	Heated	4 C.W. Amber Durum.....	1.51
Rejected	Mixed	Heated	5 C.W. Amber Durum.....	1.46
Rejected	Mixed	Heated	6 C.W. Amber Durum.....	1.42
Rejected	Mixed	Heated	1 C.W. Garnet.....	1.56
Rejected	Mixed	Heated	2 C.W. Garnet.....	1.54
Rejected	Mixed	Heated	3 C.W. Garnet.....	1.52
Rejected	Mixed	Heated	1 Alberta Red Winter.....	1.61
Rejected	Mixed	Heated	2 Alberta Winter.....	1.60
Rejected	Mixed	Heated	3 Alberta Winter.....	1.57
Rejected	Mixed	Heated	4 Alberta Winter.....	1.53
Rejected	Mixed	Heated	1 Mixed Wheat.....	1.47
Rejected	Mixed	Heated	2 Mixed Wheat.....	1.42
Rejected	Mixed	Heated	3 Mixed Wheat.....	1.45
Rejected	Mixed	Heated	4 Mixed Wheat.....	1.42
Rejected	Mixed	Heated	5 Mixed Wheat.....	1.47
Rejected	Mixed	Heated	6 Mixed Wheat.....	1.42
Rejected	Mixed	Heated	1 Mixed Grain.....	1.31
Tough	Rejected	Mixed	Heated 1 Northern.....	1.58
Tough	Rejected	Mixed	Heated 2 Northern.....	1.55
Tough	Rejected	Mixed	Heated 3 Northern.....	1.53
Tough	Rejected	Mixed	Heated 4 Northern.....	1.48

Canadian Wheat Board Act—continued

Payment
per Bushel
\$ c.

Tough Rejected Mixed Heated 5 Wheat.....	1.43
Tough Rejected Mixed Heated 6 Wheat.....	1.39
Tough Rejected Mixed Heated Feed Wheat.....	1.37
Tough Rejected Mixed Heated 4 Special.....	1.48
Tough Rejected Mixed Heated 5 Special.....	1.43
Tough Rejected Mixed Heated 6 Special.....	1.39
Tough Rejected Mixed Heated 1 C.W. Amber Durum.....	1.58
Tough Rejected Mixed Heated 2 C.W. Amber Durum.....	1.55
Tough Rejected Mixed Heated 3 C.W. Amber Durum.....	1.53
Tough Rejected Mixed Heated 4 C.W. Amber Durum.....	1.48
Tough Rejected Mixed Heated 5 C.W. Amber Durum.....	1.43
Tough Rejected Mixed Heated 6 C.W. Amber Durum.....	1.39
Tough Rejected Mixed Heated 1 C.W. Garnet.....	1.53
Tough Rejected Mixed Heated 2 C.W. Garnet.....	1.51
Tough Rejected Mixed Heated 3 C.W. Garnet.....	1.49
Tough Rejected Mixed Heated 1 Alberta Red Winter.....	1.58
Tough Rejected Mixed Heated 2 Alberta Winter.....	1.57
Tough Rejected Mixed Heated 3 Alberta Winter.....	1.54
Tough Rejected Mixed Heated 4 Alberta Winter.....	1.50
Tough Rejected Mixed Heated 1 Mixed Wheat.....	1.44
Tough Rejected Mixed Heated 2 Mixed Wheat.....	1.39
Tough Rejected Mixed Heated 3 Mixed Wheat.....	1.42
Tough Rejected Mixed Heated 4 Mixed Wheat.....	1.39
Tough Rejected Mixed Heated 5 Mixed Wheat.....	1.44
Tough Rejected Mixed Heated 6 Mixed Wheat.....	1.39
Tough Rejected Mixed Heated 1 Mixed Grain.....	1.28
Damp 1 Northern.....	1.57
Damp 2 Northern.....	1.54
Damp 3 Northern.....	1.52
Damp 4 Northern.....	1.47
Damp 5 Wheat.....	1.39
Damp 6 Wheat.....	1.35
Damp Feed Wheat.....	1.33
Damp 4 Special.....	1.47
Damp 5 Special.....	1.39
Damp 6 Special.....	1.35
Damp 1 C.W. Amber Durum.....	1.57
Damp 2 C.W. Amber Durum.....	1.54
Damp 3 C.W. Amber Durum.....	1.52
Damp 4 C.W. Amber Durum.....	1.47
Damp 5 C.W. Amber Durum.....	1.39
Damp 6 C.W. Amber Durum.....	1.35
Damp 1 C.W. Garnet.....	1.52
Damp 2 C.W. Garnet.....	1.50
Damp 3 C.W. Garnet.....	1.48
Damp 1 Alberta Red Winter.....	1.57
Damp 2 Alberta Winter.....	1.56
Damp 3 Alberta Winter.....	1.53
Damp 4 Alberta Winter.....	1.49
Damp 1 Mixed Wheat.....	1.40
Damp 2 Mixed Wheat.....	1.35
Damp 3 Mixed Wheat.....	1.38
Damp 4 Mixed Wheat.....	1.35
Damp 5 Mixed Wheat.....	1.40
Damp 6 Mixed Wheat.....	1.35
Damp 1 Mixed Grain.....	1.24
Dried 1 Northern.....	1.67
Dried 2 Northern.....	1.64
Dried 3 Northern.....	1.62
Dried 4 Northern.....	1.57
Smutty Rejected Mixed Heated 1 Northern.....	1.53
Smutty Rejected Mixed Heated 2 Northern.....	1.50
Smutty Rejected Mixed Heated 3 Northern.....	1.48
Smutty Rejected Mixed Heated 4 Northern.....	1.43
Smutty Rejected Mixed Heated 5 Wheat.....	1.37
Smutty Rejected Mixed Heated 6 Wheat.....	1.33

Canadian Wheat Board Act—continued

					Payment per Bushel
					\$ c.
Smutty	Rejected	Mixed	Heated	Feed Wheat.....	1.31
Smutty	Rejected	Mixed	Heated	4 Special.....	1.43
Smutty	Rejected	Mixed	Heated	5 Special.....	1.37
Smutty	Rejected	Mixed	Heated	6 Special.....	1.33
Smutty	Rejected	Mixed	Heated	1 C.W. Amber Durum.....	1.53
Smutty	Rejected	Mixed	Heated	2 C.W. Amber Durum.....	1.50
Smutty	Rejected	Mixed	Heated	3 C.W. Amber Durum.....	1.48
Smutty	Rejected	Mixed	Heated	4 C.W. Amber Durum.....	1.43
Smutty	Rejected	Mixed	Heated	5 C.W. Amber Durum.....	1.37
Smutty	Rejected	Mixed	Heated	6 C.W. Amber Durum.....	1.33
Smutty	Rejected	Mixed	Heated	1 C.W. Garnet.....	1.48
Smutty	Rejected	Mixed	Heated	2 C.W. Garnet.....	1.46
Smutty	Rejected	Mixed	Heated	3 C.W. Garnet.....	1.44
Smutty	Rejected	Mixed	Heated	1 Alberta Red Winter.....	1.53
Smutty	Rejected	Mixed	Heated	2 Alberta Winter.....	1.52
Smutty	Rejected	Mixed	Heated	3 Alberta Winter.....	1.49
Smutty	Rejected	Mixed	Heated	4 Alberta Winter.....	1.45
Smutty	Rejected	Mixed	Heated	1 Mixed Wheat.....	1.38
Smutty	Rejected	Mixed	Heated	2 Mixed Wheat.....	1.33
Smutty	Rejected	Mixed	Heated	3 Mixed Wheat.....	1.36
Smutty	Rejected	Mixed	Heated	4 Mixed Wheat.....	1.33
Smutty	Rejected	Mixed	Heated	5 Mixed Wheat.....	1.38
Smutty	Rejected	Mixed	Heated	6 Mixed Wheat.....	1.33
Smutty	Rejected	Mixed	Heated	1 Mixed Grain.....	1.22
Tough	Smutty	Rejected	Mixed	Heated 1 Northern.....	1.51
Tough	Smutty	Rejected	Mixed	Heated 2 Northern.....	1.48
Tough	Smutty	Rejected	Mixed	Heated 3 Northern.....	1.46
Tough	Smutty	Rejected	Mixed	Heated 4 Northern.....	1.41
Tough	Smutty	Rejected	Mixed	Heated 5 Wheat.....	1.35
Tough	Smutty	Rejected	Mixed	Heated 6 Wheat.....	1.31
Tough	Smutty	Rejected	Mixed	Heated Feed Wheat.....	1.29
Tough	Smutty	Rejected	Mixed	Heated 4 Special.....	1.41
Tough	Smutty	Rejected	Mixed	Heated 5 Special.....	1.35
Tough	Smutty	Rejected	Mixed	Heated 6 Special.....	1.31
Tough	Smutty	Rejected	Mixed	Heated 1 C.W. Amber Durum.....	1.51
Tough	Smutty	Rejected	Mixed	Heated 2 C.W. Amber Durum.....	1.48
Tough	Smutty	Rejected	Mixed	Heated 3 C.W. Amber Durum.....	1.46
Tough	Smutty	Rejected	Mixed	Heated 4 C.W. Amber Durum.....	1.41
Tough	Smutty	Rejected	Mixed	Heated 5 C.W. Amber Durum.....	1.35
Tough	Smutty	Rejected	Mixed	Heated 6 C.W. Amber Durum.....	1.31
Tough	Smutty	Rejected	Mixed	Heated 1 C.W. Garnet.....	1.46
Tough	Smutty	Rejected	Mixed	Heated 2 C.W. Garnet.....	1.44
Tough	Smutty	Rejected	Mixed	Heated 3 C.W. Garnet.....	1.42
Tough	Smutty	Rejected	Mixed	Heated 1 Alberta Red Winter.....	1.51
Tough	Smutty	Rejected	Mixed	Heated 2 Alberta Winter.....	1.50
Tough	Smutty	Rejected	Mixed	Heated 3 Alberta Winter.....	1.47
Tough	Smutty	Rejected	Mixed	Heated 4 Alberta Winter.....	1.43
Tough	Smutty	Rejected	Mixed	Heated 1 Mixed Wheat.....	1.36
Tough	Smutty	Rejected	Mixed	Heated 2 Mixed Wheat.....	1.31
Tough	Smutty	Rejected	Mixed	Heated 3 Mixed Wheat.....	1.34
Tough	Smutty	Rejected	Mixed	Heated 4 Mixed Wheat.....	1.31
Tough	Smutty	Rejected	Mixed	Heated 5 Mixed Wheat.....	1.36
Tough	Smutty	Rejected	Mixed	Heated 6 Mixed Wheat.....	1.31
Tough	Smutty	Rejected	Mixed	Heated 1 Mixed Grain.....	1.20
Rejected	a/c	Barley	1 Northern.....		1.64
Rejected	a/c	Barley	2 Northern.....		1.61
Rejected	a/c	Barley	3 Northern.....		1.59
Rejected	a/c	Barley	4 Northern.....		1.54
Rejected	a/c	Barley	5 Wheat.....		1.49
Rejected	a/c	Barley	6 Wheat.....		1.45
Rejected	a/c	Barley	Feed Wheat.....		1.43
Rejected	a/c	Barley	4 Special.....		1.54
Rejected	a/c	Barley	5 Special.....		1.49
Rejected	a/c	Barley	6 Special.....		1.45
Rejected	a/c	Barley	1 C.W. Amber Durum.....		1.64
Rejected	a/c	Barley	2 C.W. Amber Durum.....		1.61

Canadian Wheat Board Act—continued

		Payment per Bushel
	\$ c.	
Rejected a/c Barley 3 C.W. Amber Durum.....	1.59	
Rejected a/c Barley 4 C.W. Amber Durum.....	1.54	
Rejected a/c Barley 5 C.W. Amber Durum.....	1.49	
Rejected a/c Barley 6 C.W. Amber Durum.....	1.45	
Rejected a/c Barley 1 C.W. Garnet.....	1.59	
Rejected a/c Barley 2 C.W. Garnet.....	1.57	
Rejected a/c Barley 3 C.W. Garnet.....	1.55	
Rejected a/c Barley 1 Alberta Red Winter.....	1.64	
Rejected a/c Barley 2 Alberta Winter.....	1.63	
Rejected a/c Barley 3 Alberta Winter.....	1.60	
Rejected a/c Barley 4 Alberta Winter.....	1.56	
Rejected a/c Barley 1 Mixed Wheat.....	1.50	
Rejected a/c Barley 2 Mixed Wheat.....	1.45	
Rejected a/c Barley 3 Mixed Wheat.....	1.48	
Rejected a/c Barley 4 Mixed Wheat.....	1.45	
Rejected a/c Barley 5 Mixed Wheat.....	1.50	
Rejected a/c Barley 6 Mixed Wheat.....	1.45	
Rejected a/c Rye 1 Northern.....	1.64	
Rejected a/c Rye 2 Northern.....	1.61	
Rejected a/c Rye 3 Northern.....	1.59	
Rejected a/c Rye 4 Northern.....	1.54	
Rejected a/c Rye 5 Wheat.....	1.49	
Rejected a/c Rye 6 Wheat.....	1.45	
Rejected a/c Rye Feed Wheat.....	1.43	
Rejected a/c Rye 4 Special.....	1.54	
Rejected a/c Rye 5 Special.....	1.49	
Rejected a/c Rye 6 Special.....	1.45	
Rejected a/c Rye 1 C.W. Amber Durum.....	1.64	
Rejected a/c Rye 2 C.W. Amber Durum.....	1.61	
Rejected a/c Rye 3 C.W. Amber Durum.....	1.59	
Rejected a/c Rye 4 C.W. Amber Durum.....	1.54	
Rejected a/c Rye 5 C.W. Amber Durum.....	1.49	
Rejected a/c Rye 6 C.W. Amber Durum.....	1.45	
Rejected a/c Rye 1 C.W. Garnet.....	1.59	
Rejected a/c Rye 2 C.W. Garnet.....	1.57	
Rejected a/c Rye 3 C.W. Garnet.....	1.55	
Rejected a/c Rye 1 Alberta Red Winter.....	1.64	
Rejected a/c Rye 2 Alberta Winter.....	1.63	
Rejected a/c Rye 3 Alberta Winter.....	1.60	
Rejected a/c Rye 4 Alberta Winter.....	1.56	
Rejected a/c Rye 1 Mixed Wheat.....	1.50	
Rejected a/c Rye 2 Mixed Wheat.....	1.45	
Rejected a/c Rye 3 Mixed Wheat.....	1.48	
Rejected a/c Rye 4 Mixed Wheat.....	1.45	
Rejected a/c Rye 5 Mixed Wheat.....	1.50	
Rejected a/c Rye 6 Mixed Wheat.....	1.45	
Rejected Heated and Heating 1 Northern.....	1.57	
Rejected Heated and Heating 2 Northern.....	1.54	
Rejected Heated and Heating 3 Northern.....	1.52	
Rejected Heated and Heating 4 Northern.....	1.47	
Rejected Heated and Heating 5 Wheat.....	1.42	
Rejected Heated and Heating 6 Wheat.....	1.38	
Rejected Heated and Heating Feed Wheat.....	1.36	
Rejected Heated and Heating 4 Special.....	1.47	
Rejected Heated and Heating 5 Special.....	1.42	
Rejected Heated and Heating 6 Special.....	1.38	
Rejected Heated and Heating 1 C.W. Amber Durum.....	1.57	
Rejected Heated and Heating 2 C.W. Amber Durum.....	1.54	
Rejected Heated and Heating 3 C.W. Amber Durum.....	1.52	
Rejected Heated and Heating 4 C.W. Amber Durum.....	1.47	
Rejected Heated and Heating 5 C.W. Amber Durum.....	1.42	
Rejected Heated and Heating 6 C.W. Amber Durum.....	1.38	
Rejected Heated and Heating 1 C.W. Garnet.....	1.52	
Rejected Heated and Heating 2 C.W. Garnet.....	1.50	
Rejected Heated and Heating 3 C.W. Garnet.....	1.48	
Rejected Heated and Heating 1 Alberta Red Winter.....	1.57	

Canadian Wheat Board Act—concluded

	<i>Payment per Bushel</i>
	\$ c.
Rejected Heated and Heating 2 Alberta Winter.....	1.56
Rejected Heated and Heating 3 Alberta Winter.....	1.53
Rejected Heated and Heating 4 Alberta Winter.....	1.49
Rejected Heated and Heating 1 Mixed Wheat.....	1.43
Rejected Heated and Heating 2 Mixed Wheat.....	1.38
Rejected Heated and Heating 3 Mixed Wheat.....	1.41
Rejected Heated and Heating 4 Mixed Wheat.....	1.38
Rejected Heated and Heating 5 Mixed Wheat.....	1.43
Rejected Heated and Heating 6 Mixed Wheat.....	1.38
Rejected Heated and Heating 1 Mixed Grain.....	1.27
Tough Rejected Heated and Heating 1 Northern.....	1.55
Tough Rejected Heated and Heating 2 Northern.....	1.52
Tough Rejected Heated and Heating 3 Northern.....	1.50
Tough Rejected Heated and Heating 4 Northern.....	1.45
Tough Rejected Heated and Heating 5 Wheat.....	1.40
Tough Rejected Heated and Heating 6 Wheat.....	1.36
Tough Rejected Heated and Heating Feed Wheat.....	1.34
Tough Rejected Heated and Heating 4 Special.....	1.45
Tough Rejected Heated and Heating 5 Special.....	1.40
Tough Rejected Heated and Heating 6 Special.....	1.36
Tough Rejected Heated and Heating 1 C.W. Amber Durum	1.55
Tough Rejected Heated and Heating 2 C.W. Amber Durum	1.52
Tough Rejected Heated and Heating 3 C.W. Amber Durum	1.50
Tough Rejected Heated and Heating 4 C.W. Amber Durum	1.45
Tough Rejected Heated and Heating 5 C.W. Amber Durum	1.40
Tough Rejected Heated and Heating 6 C.W. Amber Durum	1.36
Tough Rejected Heated and Heating 1 C.W. Garnet	1.50
Tough Rejected Heated and Heating 2 C.W. Garnet	1.48
Tough Rejected Heated and Heating 3 C.W. Garnet	1.46
Tough Rejected Heated and Heating 1 Alberta Red Winter	1.55
Tough Rejected Heated and Heating 2 Alberta Winter	1.54
Tough Rejected Heated and Heating 3 Alberta Winter	1.51
Tough Rejected Heated and Heating 4 Alberta Winter	1.47
Tough Rejected Heated and Heating 1 Mixed Wheat	1.41
Tough Rejected Heated and Heating 2 Mixed Wheat	1.36
Tough Rejected Heated and Heating 3 Mixed Wheat	1.39
Tough Rejected Heated and Heating 4 Mixed Wheat	1.36
Tough Rejected Heated and Heating 5 Mixed Wheat	1.41
Tough Rejected Heated and Heating 6 Mixed Wheat	1.36
Tough Rejected Heated and Heating 1 Mixed Grain	1.25
Rejected a/c Musty 1 Northern	1.59
Rejected a/c Musty 2 Northern	1.56
Rejected a/c Musty 3 Northern	1.54
Rejected a/c Musty 4 Northern	1.49
Rejected a/c Musty 5 Wheat	1.44
Rejected a/c Musty 6 Wheat	1.40
Rejected a/c Musty Feed Wheat	1.38
Rejected a/c Musty 4 Special	1.49
Rejected a/c Musty 5 Special	1.44
Rejected a/c Musty 6 Special	1.40
Rejected a/c Musty 1 C.W. Amber Durum	1.59
Rejected a/c Musty 2 C.W. Amber Durum.....	1.56
Rejected a/c Musty 3 C.W. Amber Durum.....	1.54
Rejected a/c Musty 4 C.W. Amber Durum.....	1.49
Rejected a/c Musty 5 C.W. Amber Durum.....	1.44
Rejected a/c Musty 6 C.W. Amber Durum.....	1.40
Rejected a/c Musty 1 C.W. Garnet.....	1.54
Rejected a/c Musty 2 C.W. Garnet..... Mixed Wheat.....	1.52
Rejected a/c Musty 3 C.W. Garnet.....	1.50
Rejected a/c Musty 1 Alberta Red Winter.....	1.59
Rejected a/c Musty 2 Alberta Winter.....	1.58
Rejected a/c Musty 3 Alberta Winter.....	1.55
Rejected a/c Musty 4 Alberta Winter.....	1.51
Rejected a/c Musty 1 Mixed Wheat.....	1.45
Rejected a/c Musty 2 Mixed Wheat.....	1.40
Rejected a/c Musty 3 Mixed Wheat.....	1.43

Canadian Wheat Board Act—continued

						Payment per Bushel \$ c.	
Rejected	a/c	Musty	4	Mixed	Wheat.....	1.40	
Rejected	a/c	Musty	5	Mixed	Wheat.....	1.45	
Rejected	a/c	Musty	6	Mixed	Wheat.....	1.40	
Rejected	a/c	Musty	1	Mixed	Grain.....	1.29	
Tough	Rejected	a/c	Musty	1	Northern.....	1.57	
Tough	Rejected	a/c	Musty	2	Northern.....	1.54	
Tough	Rejected	a/c	Musty	3	Northern.....	1.52	
Tough	Rejected	a/c	Musty	4	Northern.....	1.47	
Tough	Rejected	a/c	Musty	5	Wheat.....	1.42	
Tough	Rejected	a/c	Musty	6	Wheat.....	1.38	
Tough	Rejected	a/c	Musty	Feed	Wheat.....	1.36	
Tough	Rejected	a/c	Musty	4	Special.....	1.47	
Tough	Rejected	a/c	Musty	5	Special.....	1.42	
Tough	Rejected	a/c	Musty	6	Special.....	1.38	
Tough	Rejected	a/c	Musty	1	C.W. Amber Durum.....	1.57	
Tough	Rejected	a/c	Musty	2	C.W. Amber Durum.....	1.54	
Tough	Rejected	a/c	Musty	3	C.W. Amber Durum.....	1.52	
Tough	Rejected	a/c	Musty	4	C.W. Amber Durum.....	1.47	
Tough	Rejected	a/c	Musty	5	C.W. Amber Durum.....	1.42	
Tough	Rejected	a/c	Musty	6	C.W. Amber Durum.....	1.38	
Tough	Rejected	a/c	Musty	1	C.W. Garnet.....	1.52	
Tough	Rejected	a/c	Musty	2	C.W. Garnet.....	1.50	
Tough	Rejected	a/c	Musty	3	C.W. Garnet.....	1.48	
Tough	Rejected	a/c	Musty	1	Alberta Red Winter.....	1.57	
Tough	Rejected	a/c	Musty	2	Alberta Winter.....	1.56	
Tough	Rejected	a/c	Musty	3	Alberta Winter.....	1.53	
Tough	Rejected	a/c	Musty	4	Alberta Winter.....	1.49	
Tough	Rejected	a/c	Musty	1	Mixed Wheat.....	1.43	
Tough	Rejected	a/c	Musty	2	Mixed Wheat.....	1.38	
Tough	Rejected	a/c	Musty	3	Mixed Wheat.....	1.41	
Tough	Rejected	a/c	Musty	4	Mixed Wheat.....	1.38	
Tough	Rejected	a/c	Musty	5	Mixed Wheat.....	1.43	
Tough	Rejected	a/c	Musty	6	Mixed Wheat.....	1.38	
Rejected	a/c	Rotten	Kernels	1	Northern.....	1.57	
Rejected	a/c	Rotten	Kernels	2	Northern.....	1.54	
Rejected	a/c	Rotten	Kernels	3	Northern.....	1.52	
Rejected	a/c	Rotten	Kernels	4	Northern.....	1.47	
Rejected	a/c	Rotten	Kernels	5	Wheat.....	1.42	
Rejected	a/c	Rotten	Kernels	6	Wheat.....	1.38	
Rejected	a/c	Rotten	Kernels	Feed	Wheat.....	1.36	
Rejected	a/c	Rotten	Kernels	4	Special.....	1.47	
Rejected	a/c	Rotten	Kernels	5	Special.....	1.42	
Rejected	a/c	Rotten	Kernels	6	Special.....	1.38	
Rejected	a/c	Rotten	Kernels	1	C.W. Amber Durum.....	1.57	
Rejected	a/c	Rotten	Kernels	2	C.W. Amber Durum.....	1.54	
Rejected	a/c	Rotten	Kernels	3	C.W. Amber Durum.....	1.52	
Rejected	a/c	Rotten	Kernels	4	C.W. Amber Durum.....	1.47	
Rejected	a/c	Rotten	Kernels	5	C.W. Amber Durum.....	1.42	
Rejected	a/c	Rotten	Kernels	6	C.W. Amber Durum.....	1.38	
Rejected	a/c	Rotten	Kernels	1	C.W. Garnet.....	1.52	
Rejected	a/c	Rotten	Kernels	2	C.W. Garnet.....	1.50	
Rejected	a/c	Rotten	Kernels	3	C.W. Garnet.....	1.48	
Rejected	a/c	Rotten	Kernels	1	Alberta Red Winter.....	1.57	
Rejected	a/c	Rotten	Kernels	2	Alberta Winter.....	1.56	
Rejected	a/c	Rotten	Kernels	3	Alberta Winter.....	1.53	
Rejected	a/c	Rotten	Kernels	4	Alberta Winter.....	1.49	
Rejected	a/c	Rotten	Kernels	1	Mixed Wheat.....	1.43	
Rejected	a/c	Rotten	Kernels	2	Mixed Wheat.....	1.38	
Rejected	a/c	Rotten	Kernels	3	Mixed Wheat.....	1.41	
Rejected	a/c	Rotten	Kernels	4	Mixed Wheat.....	1.38	
Rejected	a/c	Rotten	Kernels	5	Mixed Wheat.....	1.43	
Rejected	a/c	Rotten	Kernels	6	Mixed Wheat.....	1.38	
Tough	Rejected	a/c	Rotten	Kernels	1	Northern.....	1.55
Tough	Rejected	a/c	Rotten	Kernels	2	Northern.....	1.52
Tough	Rejected	a/c	Rotten	Kernels	3	Northern.....	1.50
Tough	Rejected	a/c	Rotten	Kernels	4	Northern.....	1.45

Canadian Wheat Board Act—continued

					Payment per Bushel
					\$ c.
Tough	Rejected	a/c	Rotten	Kernels 5 Wheat.....	1.40
Tough	Rejected	a/c	Rotten	Kernels 6 Wheat.....	1.36
Tough	Rejected	a/c	Rotten	Kernels Feed Wheat.....	1.34
Tough	Rejected	a/c	Rotten	Kernels 4 Special.....	1.45
Tough	Rejected	a/c	Rotten	Kernels 5 Special.....	1.40
Tough	Rejected	a/c	Rotten	Kernels 6 Special.....	1.36
Tough	Rejected	a/c	Rotten	Kernels 1 C.W. Amber Durum.....	1.55
Tough	Rejected	a/c	Rotten	Kernels 2 C.W. Amber Durum.....	1.52
Tough	Rejected	a/c	Rotten	Kernels 3 C.W. Amber Durum.....	1.50
Tough	Rejected	a/c	Rotten	Kernels 4 C.W. Amber Durum.....	1.45
Tough	Rejected	a/c	Rotten	Kernels 5 C.W. Amber Durum.....	1.40
Tough	Rejected	a/c	Rotten	Kernels 6 C.W. Amber Durum.....	1.36
Tough	Rejected	a/c	Rotten	Kernels 1 C.W. Garnet.....	1.50
Tough	Rejected	a/c	Rotten	Kernels 2 C.W. Garnet.....	1.48
Tough	Rejected	a/c	Rotten	Kernels 3 C.W. Garnet.....	1.46
Tough	Rejected	a/c	Rotten	Kernels 1 Alberta Red Winter.....	1.55
Tough	Rejected	a/c	Rotten	Kernels 2 Alberta Winter.....	1.54
Tough	Rejected	a/c	Rotten	Kernels 3 Alberta Winter.....	1.51
Tough	Rejected	a/c	Rotten	Kernels 4 Alberta Winter.....	1.47
Tough	Rejected	a/c	Rotten	Kernels 1 Mixed Wheat.....	1.41
Tough	Rejected	a/c	Rotten	Kernels 2 Mixed Wheat.....	1.36
Tough	Rejected	a/c	Rotten	Kernels 3 Mixed Wheat.....	1.39
Tough	Rejected	a/c	Rotten	Kernels 4 Mixed Wheat.....	1.36
Tough	Rejected	a/c	Rotten	Kernels 5 Mixed Wheat.....	1.41
Tough	Rejected	a/c	Rotten	Kernels 6 Mixed Wheat.....	1.36
Rejected	a/c	Rotten	Kernels Mixed	Heated 1 Northern.....	1.54
Rejected	a/c	Rotten	Kernels Mixed	Heated 2 Northern.....	1.51
Rejected	a/c	Rotten	Kernels Mixed	Heated 3 Northern.....	1.49
Rejected	a/c	Rotten	Kernels Mixed	Heated 4 Northern.....	1.44
Rejected	a/c	Rotten	Kernels Mixed	Heated 5 Wheat.....	1.39
Rejected	a/c	Rotten	Kernels Mixed	Heated 6 Wheat.....	1.35
Rejected	a/c	Rotten	Kernels Mixed	Heated 4 Special.....	1.44
Rejected	a/c	Rotten	Kernels Mixed	Heated 5 Special.....	1.39
Rejected	a/c	Rotten	Kernels Mixed	Heated 6 Special.....	1.35
Rejected	a/c	Rotten	Kernels Mixed	Heated 1 C.W. Amber Durum.....	1.54
Rejected	a/c	Rotten	Kernels Mixed	Heated 2 C.W. Amber Durum....	1.51
Rejected	a/c	Rotten	Kernels Mixed	Heated 3 C.W. Amber Durum....	1.49
Rejected	a/c	Rotten	Kernels Mixed	Heated 4 C.W. Amber Durum....	1.44
Rejected	a/c	Rotten	Kernels Mixed	Heated 5 C.W. Amber Durum....	1.39
Rejected	a/c	Rotten	Kernels Mixed	Heated 6 C.W. Amber Durum....	1.35
Rejected	a/c	Rotten	Kernels Mixed	Heated 1 C.W. Garnet.....	1.49
Rejected	a/c	Rotten	Kernels Mixed	Heated 2 C.W. Garnet.....	1.47
Rejected	a/c	Rotten	Kernels Mixed	Heated 3 C.W. Garnet.....	1.45
Rejected	a/c	Rotten	Kernels Mixed	Heated 1 Alberta Red Winter....	1.54
Rejected	a/c	Rotten	Kernels Mixed	Heated 2 Alberta Winter.....	1.53
Rejected	a/c	Rotten	Kernels Mixed	Heated 3 Alberta Winter.....	1.50
Rejected	a/c	Rotten	Kernels Mixed	Heated 4 Alberta Winter.....	1.46
Rejected	a/c	Rotten	Kernels Mixed	Heated 1 Mixed Wheat.....	1.40
Rejected	a/c	Rotten	Kernels Mixed	Heated 2 Mixed Wheat.....	1.35
Rejected	a/c	Rotten	Kernels Mixed	Heated 3 Mixed Wheat.....	1.38
Rejected	a/c	Rotten	Kernels Mixed	Heated 4 Mixed Wheat.....	1.35
Rejected	a/c	Rotten	Kernels Mixed	Heated 5 Mixed Wheat.....	1.40
Rejected	a/c	Rotten	Kernels Mixed	Heated 6 Mixed Wheat.....	1.35
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 1 Northern.....	1.52
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 2 Northern.....	1.49
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 3 Northern.....	1.47
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 4 Northern.....	1.42
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 5 Wheat.....	1.37
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 6 Wheat.....	1.33
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 4 Special.....	1.42
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 5 Special.....	1.37
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 6 Special.....	1.33
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 1 C.W. Amber Durum	1.52
Tough	Rejected	a/c	Rotten	Kernels Mixed Heated 2 C.W. Amber Durum	1.49

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Tough Rejected a/c Rotten Kernels Mixed Heated 3 C.W. Amber Durum	1.47
Tough Rejected a/c Rotten Kernels Mixed Heated 4 C.W. Amber Durum	1.42
Tough Rejected a/c Rotten Kernels Mixed Heated 5 C.W. Amber Durum	1.37
Tough Rejected a/c Rotten Kernels Mixed Heated 6 C.W. Amber Durum	1.33
Tough Rejected a/c Rotten Kernels Mixed Heated 1 C.W. Garnet....	1.47
Tough Rejected a/c Rotten Kernels Mixed Heated 2 C.W. Garnet....	1.45
Tough Rejected a/c Rotten Kernels Mixed Heated 3 C.W. Garnet....	1.43
Tough Rejected a/c Rotten Kernels Mixed Heated 1 Alberta Red Winter	1.52
Tough Rejected a/c Rotten Kernels Mixed Heated 2 Alberta Winter..	1.51
Tough Rejected a/c Rotten Kernels Mixed Heated 3 Alberta Winter..	1.48
Tough Rejected a/c Rotten Kernels Mixed Heated 4 Alberta Winter..	1.44
Tough Rejected a/c Rotten Kernels Mixed Heated 1 Mixed Wheat...	1.38
Tough Rejected a/c Rotten Kernels Mixed Heated 2 Mixed Wheat...	1.33
Tough Rejected a/c Rotten Kernels Mixed Heated 3 Mixed Wheat...	1.36
Tough Rejected a/c Rotten Kernels Mixed Heated 4 Mixed Wheat...	1.33
Tough Rejected a/c Rotten Kernels Mixed Heated 5 Mixed Wheat...	1.38
Tough Rejected a/c Rotten Kernels Mixed Heated 6 Mixed Wheat...	1.33
Rejected a/c Rotten Kernels Mixed Heating 1 Northern.....	1.52
Rejected a/c Rotten Kernels Mixed Heating 2 Northern.....	1.49
Rejected a/c Rotten Kernels Mixed Heating 3 Northern.....	1.47
Rejected a/c Rotten Kernels Mixed Heating 4 Northern.....	1.42
Rejected a/c Rotten Kernels Mixed Heating 5 Wheat.....	1.37
Rejected a/c Rotten Kernels Mixed Heating 6 Wheat.....	1.33
Rejected a/c Rotten Kernels Mixed Heating 4 Special.....	1.42
Rejected a/c Rotten Kernels Mixed Heating 5 Special.....	1.37
Rejected a/c Rotten Kernels Mixed Heating 6 Special.....	1.33
Rejected a/c Rotten Kernels Mixed Heating 1 C.W. Amber Durum...	1.52
Rejected a/c Rotten Kernels Mixed Heating 2 C.W. Amber Durum...	1.49
Rejected a/c Rotten Kernels Mixed Heating 3 C.W. Amber Durum...	1.47
Rejected a/c Rotten Kernels Mixed Heating 4 C.W. Amber Durum...	1.42
Rejected a/c Rotten Kernels Mixed Heating 5 C.W. Amber Durum...	1.37
Rejected a/c Rotten Kernels Mixed Heating 6 C.W. Amber Durum...	1.33
Rejected a/c Rotten Kernels Mixed Heating 1 C.W. Garnet.....	1.47
Rejected a/c Rotten Kernels Mixed Heating 2 C.W. Garnet.....	1.45
Rejected a/c Rotten Kernels Mixed Heating 3 C.W. Garnet.....	1.43
Rejected a/c Rotten Kernels Mixed Heating 1 Alberta Red Winter...	1.52
Rejected a/c Rotten Kernels Mixed Heating 2 Alberta Winter.....	1.51
Rejected a/c Rotten Kernels Mixed Heating 3 Alberta Winter.....	1.48
Rejected a/c Rotten Kernels Mixed Heating 4 Alberta Winter.....	1.44
Rejected a/c Rotten Kernels Mixed Heating 1 Mixed Wheat.....	1.38
Rejected a/c Rotten Kernels Mixed Heating 2 Mixed Wheat.....	1.33
Rejected a/c Rotten Kernels Mixed Heating 3 Mixed Wheat.....	1.36
Rejected a/c Rotten Kernels Mixed Heating 4 Mixed Wheat.....	1.33
Rejected a/c Rotten Kernels Mixed Heating 5 Mixed Wheat.....	1.38
Rejected a/c Rotten Kernels Mixed Heating 6 Mixed Wheat.....	1.33
Tough Rejected a/c Rotten Kernels Mixed Heating 1 Northern.....	1.50
Tough Rejected a/c Rotten Kernels Mixed Heating 2 Northern.....	1.47
Tough Rejected a/c Rotten Kernels Mixed Heating 3 Northern.....	1.45
Tough Rejected a/c Rotten Kernels Mixed Heating 4 Northern.....	1.40
Tough Rejected a/c Rotten Kernels Mixed Heating 5 Wheat.....	1.35
Tough Rejected a/c Rotten Kernels Mixed Heating 6 Wheat.....	1.31
Tough Rejected a/c Rotten Kernels Mixed Heating 4 Special.....	1.40
Tough Rejected a/c Rotten Kernels Mixed Heating 5 Special.....	1.35
Tough Rejected a/c Rotten Kernels Mixed Heating 6 Special.....	1.31
Tough Rejected a/c Rotten Kernels Mixed Heating 1 C.W. Amber Durum	1.50
Tough Rejected a/c Rotten Kernels Mixed Heating 2 C.W. Amber Durum	1.47
Tough Rejected a/c Rotten Kernels Mixed Heating 3 C.W. Amber Durum	1.45

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Tough Rejected a/c Rotten Kernels Mixed Heating 4 C.W. Amber Durum	1.40
Tough Rejected a/c Rotten Kernels Mixed Heating 5 C.W. Amber Durum	1.35
Tough Rejected a/c Rotten Kernels Mixed Heating 6 C.W. Amber Durum	1.31
Tough Rejected a/c Rotten Kernels Mixed Heating 1 C.W. Garnet...	1.45
Tough Rejected a/c Rotten Kernels Mixed Heating 2 C.W. Garnet...	1.43
Tough Rejected a/c Rotten Kernels Mixed Heating 3 C.W. Garnet...	1.41
Tough Rejected a/c Rotten Kernels Mixed Heating 1 Alberta Red Winter	1.50
Tough Rejected a/c Rotten Kernels Mixed Heating 2 Alberta Winter.	1.49
Tough Rejected a/c Rotten Kernels Mixed Heating 3 Alberta Winter.	1.46
Tough Rejected a/c Rotten Kernels Mixed Heating 4 Alberta Winter.	1.42
Tough Rejected a/c Rotten Kernels Mixed Heating 1 Mixed Wheat..	1.36
Tough Rejected a/c Rotten Kernels Mixed Heating 2 Mixed Wheat..	1.31
Tough Rejected a/c Rotten Kernels Mixed Heating 3 Mixed Wheat..	1.34
Tough Rejected a/c Rotten Kernels Mixed Heating 4 Mixed Wheat..	1.31
Tough Rejected a/c Rotten Kernels Mixed Heating 5 Mixed Wheat..	1.36
Tough Rejected a/c Rotten Kernels Mixed Heating 6 Mixed Wheat..	1.31
Smutty Rejected Sprouted 1 Northern.....	1.55
Smutty Rejected Sprouted 2 Northern.....	1.52
Smutty Rejected Sprouted 3 Northern.....	1.50
Smutty Rejected Sprouted 4 Northern.....	1.45
Smutty Rejected Sprouted 5 Wheat.....	1.39
Smutty Rejected Sprouted 6 Wheat.....	1.35
Smutty Rejected Sprouted Feed Wheat.....	1.33
Smutty Rejected Sprouted 4 Special.....	1.45
Smutty Rejected Sprouted 5 Special.....	1.39
Smutty Rejected Sprouted 6 Special.....	1.35
Smutty Rejected Sprouted 1 C.W. Amber Durum.....	1.55
Smutty Rejected Sprouted 2 C.W. Amber Durum.....	1.52
Smutty Rejected Sprouted 3 C.W. Amber Durum.....	1.50
Smutty Rejected Sprouted 4 C.W. Amber Durum.....	1.45
Smutty Rejected Sprouted 5 C.W. Amber Durum.....	1.39
Smutty Rejected Sprouted 6 C.W. Amber Durum.....	1.35
Smutty Rejected Sprouted 1 Alberta Red Winter.....	1.55
Smutty Rejected Sprouted 2 Alberta Winter.....	1.54
Smutty Rejected Sprouted 3 Alberta Winter.....	1.51
Smutty Rejected Sprouted 4 Alberta Winter.....	1.47
Tough Smutty Rejected Sprouted 1 Northern.....	1.53
Tough Smutty Rejected Sprouted 2 Northern.....	1.50
Tough Smutty Rejected Sprouted 3 Northern.....	1.48
Tough Smutty Rejected Sprouted 4 Northern.....	1.43
Tough Smutty Rejected Sprouted 5 Wheat.....	1.37
Tough Smutty Rejected Sprouted 6 Wheat.....	1.33
Tough Smutty Rejected Sprouted 1 C.W. Amber Durum.....	1.53
Tough Smutty Rejected Sprouted 2 C.W. Amber Durum.....	1.50
Tough Smutty Rejected Sprouted 3 C.W. Amber Durum.....	1.48
Tough Smutty Rejected Sprouted 4 C.W. Amber Durum.....	1.43
Tough Smutty Rejected Sprouted 5 C.W. Amber Durum.....	1.37
Tough Smutty Rejected Sprouted 6 C.W. Amber Durum.....	1.33
Rejected a/c Melilot Odor 1 Northern.....	1.62
Rejected a/c Melilot Odor 2 Northern.....	1.59
Rejected a/c Melilot Odor 3 Northern.....	1.57
Rejected a/c Melilot Odor 4 Northern.....	1.52
Rejected a/c Melilot Odor 5 Wheat.....	1.47
Rejected a/c Melilot Odor 6 Wheat.....	1.43
Rejected a/c Melilot Odor Feed Wheat.....	1.41
Rejected a/c Melilot Odor 1 Mixed Grain.....	1.32
Tough Rejected a/c Melilot Odor 1 Northern.....	1.60
Tough Rejected a/c Melilot Odor 2 Northern.....	1.57
Tough Rejected a/c Melilot Odor 3 Northern.....	1.55
Tough Rejected a/c Melilot Odor 4 Northern.....	1.50
Tough Rejected a/c Melilot Odor 5 Wheat.....	1.45

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Tough Rejected a/c Melilot Odor 6 Wheat.....	1.41
Tough Rejected a/c Melilot Odor Feed Wheat.....	1.39
Tough Rejected a/c Melilot Odor 1 Mixed Grain.....	1.30
Rejected a/c Objectionable Odor 1 Northern.....	1.49
Rejected a/c Objectionable Odor 2 Northern.....	1.46
Rejected a/c Objectionable Odor 3 Northern.....	1.44
Rejected a/c Objectionable Odor 4 Northern.....	1.39
Rejected a/c Objectionable Odor 5 Wheat.....	1.34
Rejected a/c Objectionable Odor 6 Wheat.....	1.30
Rejected a/c Objectionable Odor Feed Wheat.....	1.28
Tough Rejected a/c Objectionable Odor 1 Northern.....	1.47
Tough Rejected a/c Objectionable Odor 2 Northern.....	1.44
Tough Rejected a/c Objectionable Odor 3 Northern.....	1.42
Tough Rejected a/c Objectionable Odor 4 Northern.....	1.37
Tough Rejected a/c Objectionable Odor 5 Wheat.....	1.32
Tough Rejected a/c Objectionable Odor 6 Wheat.....	1.28
Tough Rejected a/c Objectionable Odor Feed Wheat.....	1.26
Rejected a/c Objectionable Foreign Odor 1 Northern.....	1.49
Rejected a/c Objectionable Foreign Odor 2 Northern.....	1.46
Rejected a/c Objectionable Foreign Odor 3 Northern.....	1.44
Rejected a/c Objectionable Foreign Odor 4 Northern.....	1.39
Rejected a/c Objectionable Foreign Odor 5 Wheat.....	1.34
Rejected a/c Objectionable Foreign Odor 6 Wheat.....	1.30
Rejected a/c Objectionable Foreign Odor Feed Wheat.....	1.28
Tough Rejected a/c Objectionable Foreign Odor 1 Northern.....	1.47
Tough Rejected a/c Objectionable Foreign Odor 2 Northern.....	1.44
Tough Rejected a/c Objectionable Foreign Odor 3 Northern.....	1.42
Tough Rejected a/c Objectionable Foreign Odor 4 Northern.....	1.37
Tough Rejected a/c Objectionable Foreign Odor 5 Wheat.....	1.32
Tough Rejected a/c Objectionable Foreign Odor 6 Wheat.....	1.28
Tough Rejected a/c Objectionable Foreign Odor Feed Wheat.....	1.26
Rejected a/c Tartarian Buckwheat 1 Northern.....	1.61
Rejected a/c Tartarian Buckwheat 2 Northern.....	1.58
Rejected a/c Tartarian Buckwheat 3 Northern.....	1.56
Rejected a/c Tartarian Buckwheat 4 Northern.....	1.51
Rejected a/c Tartarian Buckwheat 5 Wheat.....	1.46
Rejected a/c Tartarian Buckwheat 6 Wheat.....	1.42
Rejected a/c Tartarian Buckwheat Feed Wheat.....	1.40
Rejected a/c Tartarian Buckwheat 1 C.W. Garnet.....	1.56
Rejected a/c Tartarian Buckwheat 2 C.W. Garnet.....	1.54
Rejected a/c Tartarian Buckwheat 3 C.W. Garnet.....	1.52
Tough Rejected a/c Tartarian Buckwheat 1 Northern.....	1.59
Tough Rejected a/c Tartarian Buckwheat 2 Northern.....	1.56
Tough Rejected a/c Tartarian Buckwheat 3 Northern.....	1.54
Tough Rejected a/c Tartarian Buckwheat 4 Northern.....	1.49
Tough Rejected a/c Tartarian Buckwheat 5 Wheat.....	1.44
Tough Rejected a/c Tartarian Buckwheat 6 Wheat.....	1.40
Tough Rejected a/c Tartarian Buckwheat Feed Wheat.....	1.38
Rejected a/c Binburnt 1 Northern.....	1.61
Rejected a/c Binburnt 2 Northern.....	1.58
Rejected a/c Binburnt 3 Northern.....	1.56
Rejected a/c Binburnt 4 Northern.....	1.51
Rejected a/c Binburnt 5 Wheat.....	1.46
Rejected a/c Binburnt 6 Wheat.....	1.42
Rejected a/c Binburnt Feed Wheat.....	1.40
Tough Rejected a/c Binburnt 1 Northern.....	1.59
Tough Rejected a/c Binburnt 2 Northern.....	1.56
Tough Rejected a/c Binburnt 3 Northern.....	1.54
Tough Rejected a/c Binburnt 4 Northern.....	1.49
Tough Rejected a/c Binburnt 5 Wheat.....	1.44
Tough Rejected a/c Binburnt 6 Wheat.....	1.40
Tough Rejected a/c Binburnt Feed Wheat.....	1.38
Rejected Mixed Fireburnt 1 Northern.....	1.25
Rejected Mixed Fireburnt 2 Northern.....	1.22
Rejected Mixed Fireburnt 3 Northern.....	1.20

Canadian Wheat Board Act—continued

	Payment per Bushel
\$ c.	
Rejected Mixed Fireburnt 4 Northern.....	1.15
Rejected Mixed Fireburnt 5 Wheat.....	1.10
Rejected Mixed Fireburnt 6 Wheat.....	1.06
Rejected Mixed Fireburnt Feed Wheat.....	1.04
Tough Rejected Mixed Fireburnt 1 Northern.....	1.23
Tough Rejected Mixed Fireburnt 2 Northern.....	1.20
Tough Rejected Mixed Fireburnt 3 Northern.....	1.18
Tough Rejected Mixed Fireburnt 4 Northern.....	1.13
Tough Rejected Mixed Fireburnt 5 Wheat.....	1.08
Tough Rejected Mixed Fireburnt 6 Wheat.....	1.04
Tough Rejected Mixed Fireburnt Feed Wheat.....	1.02
Rejected a/c Ergot 1 Northern.....	1.56
Rejected a/c Ergot 2 Northern.....	1.53
Rejected a/c Ergot 3 Northern.....	1.51
Rejected a/c Ergot 4 Northern.....	1.46
Rejected a/c Ergot 5 Wheat.....	1.41
Rejected a/c Ergot 6 Wheat.....	1.37
Rejected a/c Ergot Feed Wheat.....	1.35
Rejected a/c Ragweed 1 Northern.....	1.56
Rejected a/c Ragweed 2 Northern.....	1.53
Rejected a/c Ragweed 3 Northern.....	1.51
Rejected a/c Ragweed 4 Northern.....	1.46
Rejected a/c Ragweed 5 Wheat.....	1.41
Rejected a/c Ragweed 6 Wheat.....	1.37
Rejected a/c Ragweed Feed Wheat.....	1.35
Rejected Mixed Cinders 1 Northern.....	1.49
Rejected Mixed Cinders 2 Northern.....	1.46
Rejected Mixed Cinders 3 Northern.....	1.44
Rejected Mixed Cinders 4 Northern.....	1.39
Rejected Mixed Cinders 5 Wheat.....	1.34
Rejected Mixed Cinders 6 Wheat.....	1.30
Rejected Mixed Cinders Feed Wheat.....	1.28
Rejected Mixed Gravel 1 Northern.....	1.45
Rejected Mixed Gravel 2 Northern.....	1.42
Rejected Mixed Gravel 3 Northern.....	1.40
Rejected Mixed Gravel 4 Northern.....	1.35
Rejected Mixed Gravel 5 Wheat.....	1.30
Rejected Mixed Gravel 6 Wheat.....	1.26
Rejected Mixed Gravel Feed Wheat.....	1.24
Rejected Mixed Gravel 4 Special.....	1.35
Rejected Mixed Gravel 5 Special.....	1.30
Rejected Mixed Gravel 6 Special.....	1.26
Rejected Mixed Gravel and Cinders 1 Northern.....	1.45
Rejected Mixed Gravel and Cinders 2 Northern.....	1.42
Rejected Mixed Gravel and Cinders 3 Northern.....	1.40
Rejected Mixed Gravel and Cinders 4 Northern.....	1.35
Rejected Mixed Gravel and Cinders 5 Wheat.....	1.30
Rejected Mixed Gravel and Cinders 6 Wheat.....	1.26
Rejected Mixed Gravel and Cinders Feed Wheat.....	1.24
Rejected a/c Earth 1 Northern.....	1.59
Rejected a/c Earth 2 Northern.....	1.56
Rejected a/c Earth 3 Northern.....	1.54
Rejected a/c Earth 4 Northern.....	1.49
Rejected a/c Earth 5 Wheat.....	1.44
Rejected a/c Earth 6 Wheat.....	1.40
Rejected a/c Earth Feed Wheat.....	1.38
Rejected a/c Earth 1 Mixed Wheat.....	1.45
Rejected a/c Earth 2 Mixed Wheat.....	1.40
Rejected a/c Earth 3 Mixed Wheat.....	1.43
Rejected a/c Earth 4 Mixed Wheat.....	1.40
Rejected a/c Earth 5 Mixed Wheat.....	1.45
Rejected a/c Earth 6 Mixed Wheat.....	1.40
Rejected a/c Earth 1 Mixed Grain.....	1.29
Tough Rejected a/c Earth 1 Northern.....	1.57
Tough Rejected a/c Earth 2 Northern.....	1.54
Tough Rejected a/c Earth 3 Northern.....	1.52

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Tough Rejected a/c Earth 4 Northern.....	1.47
Tough Rejected a/c Earth 5 Wheat.....	1.42
Tough Rejected a/c Earth 6 Wheat.....	1.38
Tough Rejected a/c Earth Feed Wheat.....	1.36
Tough Rejected a/c Earth 1 Mixed Grain.....	1.27
Rejected Rejected Mixed Heated 1 Northern.....	1.56
Rejected Rejected Mixed Heated 2 Northern.....	1.53
Rejected Rejected Mixed Heated 3 Northern.....	1.51
Rejected Rejected Mixed Heated 4 Northern.....	1.46
Rejected Rejected Mixed Heated 5 Wheat.....	1.41
Rejected Rejected Mixed Heated 6 Wheat.....	1.37
Rejected Rejected Mixed Heated 1 C.W. Amber Durum.....	1.56
Rejected Rejected Mixed Heated 2 C.W. Amber Durum.....	1.53
Rejected Rejected Mixed Heated 3 C.W. Amber Durum.....	1.51
Rejected Rejected Mixed Heated 4 C.W. Amber Durum.....	1.46
Rejected Rejected Mixed Heated 5 C.W. Amber Durum.....	1.41
Rejected Rejected Mixed Heated 6 C.W. Amber Durum.....	1.37
Rejected Rejected Mixed Heated 1 Mixed Wheat.....	1.42
Rejected Rejected Mixed Heated 2 Mixed Wheat.....	1.37
Rejected Rejected Mixed Heated 3 Mixed Wheat.....	1.40
Rejected Rejected Mixed Heated 4 Mixed Wheat.....	1.37
Rejected Rejected Mixed Heated 5 Mixed Wheat.....	1.42
Rejected Rejected Mixed Heated 6 Mixed Wheat.....	1.37
Tough Rejected Rejected Mixed Heated 1 Northern.....	1.54
Tough Rejected Rejected Mixed Heated 2 Northern.....	1.51
Tough Rejected Rejected Mixed Heated 3 Northern.....	1.49
Tough Rejected Rejected Mixed Heated 4 Northern.....	1.44
Tough Rejected Rejected Mixed Heated 5 Wheat.....	1.39
Tough Rejected Rejected Mixed Heated 6 Wheat.....	1.35
Tough Rejected Rejected Mixed Heated 1 C.W. Amber Durum.....	1.54
Tough Rejected Rejected Mixed Heated 2 C.W. Amber Durum.....	1.51
Tough Rejected Rejected Mixed Heated 3 C.W. Amber Durum.....	1.49
Tough Rejected Rejected Mixed Heated 4 C.W. Amber Durum.....	1.44
Tough Rejected Rejected Mixed Heated 5 C.W. Amber Durum.....	1.39
Tough Rejected Rejected Mixed Heated 6 C.W. Amber Durum.....	1.35
Tough Rejected Rejected Mixed Heated 1 Mixed Wheat.....	1.40
Tough Rejected Rejected Mixed Heated 2 Mixed Wheat.....	1.35
Tough Rejected Rejected Mixed Heated 3 Mixed Wheat.....	1.38
Tough Rejected Rejected Mixed Heated 4 Mixed Wheat.....	1.35
Tough Rejected Rejected Mixed Heated 5 Mixed Wheat.....	1.40
Hough Rejected Rejected Mixed Heated 6 Mixed Wheat.....	1.35
Rejected Rejected Sprouted 1 Northern.....	1.59
Rejected Rejected Sprouted 2 Northern.....	1.56
Rejected Rejected Sprouted 3 Northern.....	1.54
Rejected Rejected Sprouted 4 Northern.....	1.49
Rejected Rejected Sprouted 5 Wheat.....	1.42
Rejected Rejected Sprouted 6 Wheat.....	1.38
Rejected Rejected Sprouted 1 C.W. Amber Durum.....	1.59
Rejected Rejected Sprouted 2 C.W. Amber Durum.....	1.56
Rejected Rejected Sprouted 3 C.W. Amber Durum.....	1.54
Rejected Rejected Sprouted 4 C.W. Amber Durum.....	1.49
Rejected Rejected Sprouted 5 C.W. Amber Durum.....	1.42
Rejected Rejected Sprouted 6 C.W. Amber Durum.....	1.38
Rejected Rejected Sprouted 1 Mixed Grain.....	1.27
Tough Rejected Rejected Sprouted 1 Northern.....	1.57
Tough Rejected Rejected Sprouted 2 Northern.....	1.54
Tough Rejected Rejected Sprouted 3 Northern.....	1.52
Tough Rejected Rejected Sprouted 4 Northern.....	1.47
Tough Rejected Rejected Sprouted 5 Wheat.....	1.40
Tough Rejected Rejected Sprouted 6 Wheat.....	1.36
Tough Rejected Rejected Sprouted 1 C.W. Amber Durum.....	1.57
Tough Rejected Rejected Sprouted 2 C.W. Amber Durum.....	1.54
Tough Rejected Rejected Sprouted 3 C.W. Amber Durum.....	1.52
Tough Rejected Rejected Sprouted 4 C.W. Amber Durum.....	1.47
Tough Rejected Rejected Sprouted 5 C.W. Amber Durum.....	1.40
Tough Rejected Rejected Sprouted 6 C.W. Amber Durum.....	1.36

Canadian Wheat Board Act—continued

							Payment per Bushel
							\$ c.
Rejected Sprouted Rejected Mixed Heated 1 Northern.....							1.56
Rejected Sprouted Rejected Mixed Heated 2 Northern.....							1.53
Rejected Sprouted Rejected Mixed Heated 3 Northern.....							1.51
Rejected Sprouted Rejected Mixed Heated 4 Northern.....							1.46
Rejected Sprouted Rejected Mixed Heated 5 Wheat.....							1.41
Rejected Sprouted Rejected Mixed Heated 6 Wheat.....							1.37
Rejected Sprouted Rejected Mixed Heated Feed Wheat.....							1.35
Rejected Sprouted Rejected Mixed Heated 4 Special.....							1.46
Rejected Sprouted Rejected Mixed Heated 5 Special.....							1.41
Rejected Sprouted Rejected Mixed Heated 6 Special.....							1.37
Rejected Sprouted Rejected Mixed Heated 1 C.W. Amber Durum...							1.56
Rejected Sprouted Rejected Mixed Heated 2 C.W. Amber Durum...							1.53
Rejected Sprouted Rejected Mixed Heated 3 C.W. Amber Durum...							1.51
Rejected Sprouted Rejected Mixed Heated 4 C.W. Amber Durum...							1.46
Rejected Sprouted Rejected Mixed Heated 5 C.W. Amber Durum...							1.41
Rejected Sprouted Rejected Mixed Heated 6 C.W. Amber Durum...							1.37
Tough Rejected Sprouted Rejected Mixed Heated 1 Northern.....							1.54
Tough Rejected Sprouted Rejected Mixed Heated 2 Northern.....							1.51
Tough Rejected Sprouted Rejected Mixed Heated 3 Northern.....							1.49
Tough Rejected Sprouted Rejected Mixed Heated 4 Northern.....							1.44
Tough Rejected Sprouted Rejected Mixed Heated 5 Wheat.....							1.39
Tough Rejected Sprouted Rejected Mixed Heated 6 Wheat.....							1.35
Tough Rejected Sprouted Rejected Mixed Heated Feed Wheat.....							1.33
Tough Rejected Sprouted Rejected Mixed Heated 4 Special.....							1.44
Tough Rejected Sprouted Rejected Mixed Heated 5 Special.....							1.39
Tough Rejected Sprouted Rejected Mixed Heated 6 Special.....							1.35
Tough Rejected Sprouted Rejected Mixed Heated 1 C.W. Amber Durum							1.54
Tough Rejected Sprouted Rejected Mixed Heated 2 C.W. Amber Durum							1.51
Tough Rejected Sprouted Rejected Mixed Heated 3 C.W. Amber Durum							1.49
Tough Rejected Sprouted Rejected Mixed Heated 4 C.W. Amber Durum							1.44
Tough Rejected Sprouted Rejected Mixed Heated 5 C.W. Amber Durum							1.39
Tough Rejected Sprouted Rejected Mixed Heated 6 C.W. Amber Durum							1.35
Rejected Sprouted Rejected Mixed Heating 1 Northern.....							1.54
Rejected Sprouted Rejected Mixed Heating 2 Northern.....							1.51
Rejected Sprouted Rejected Mixed Heating 3 Northern.....							1.49
Rejected Sprouted Rejected Mixed Heating 4 Northern.....							1.44
Rejected Sprouted Rejected Mixed Heating 5 Wheat.....							1.39
Rejected Sprouted Rejected Mixed Heating 6 Wheat.....							1.35
Rejected Sprouted Rejected Mixed Heating Feed Wheat.....							1.33
Rejected Sprouted Rejected Mixed Heating 4 Special.....							1.44
Rejected Sprouted Rejected Mixed Heating 5 Special.....							1.39
Rejected Sprouted Rejected Mixed Heating 6 Special.....							1.35
Rejected Sprouted Rejected Mixed Heating 1 C.W. Amber Durum...							1.54
Rejected Sprouted Rejected Mixed Heating 2 C.W. Amber Durum...							1.51
Rejected Sprouted Rejected Mixed Heating 3 C.W. Amber Durum...							1.49
Rejected Sprouted Rejected Mixed Heating 4 C.W. Amber Durum...							1.44
Rejected Sprouted Rejected Mixed Heating 5 C.W. Amber Durum...							1.39
Rejected Sprouted Rejected Mixed Heating 6 C.W. Amber Durum...							1.35
Tough Rejected Sprouted Rejected Mixed Heating 1 Northern.....							1.52
Tough Rejected Sprouted Rejected Mixed Heating 2 Northern.....							1.49
Tough Rejected Sprouted Rejected Mixed Heating 3 Northern.....							1.47
Tough Rejected Sprouted Rejected Mixed Heating 4 Northern.....							1.42
Tough Rejected Sprouted Rejected Mixed Heating 5 Wheat.....							1.37
Tough Rejected Sprouted Rejected Mixed Heating 6 Wheat.....							1.33
Tough Rejected Sprouted Rejected Mixed Heating 1 C.W. Amber Durum							1.52
Tough Rejected Sprouted Rejected Mixed Heating 2 C.W. Amber Durum							1.49
Tough Rejected Sprouted Rejected Mixed Heating 3 C.W. Amber Durum							1.47

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Tough Rejected Sprouted Rejected Mixed Heating 4 C.W. Amber Durum	1.42
Tough Rejected Sprouted Rejected Mixed Heating 5 C.W. Amber Durum	1.37
Tough Rejected Sprouted Rejected Mixed Heating 6 C.W. Amber Durum	1.33
Rejected Sprouted Rejected Musty 1 Northern.....	1.55
Rejected Sprouted Rejected Musty 2 Northern.....	1.52
Rejected Sprouted Rejected Musty 3 Northern.....	1.50
Rejected Sprouted Rejected Musty 4 Northern.....	1.45
Rejected Sprouted Rejected Musty 5 Wheat.....	1.39
Rejected Sprouted Rejected Musty 6 Wheat.....	1.35
Rejected Sprouted Rejected Musty Feed Wheat.....	1.33
Rejected Sprouted Rejected Musty 4 Special.....	1.45
Rejected Sprouted Rejected Musty 5 Special.....	1.39
Rejected Sprouted Rejected Musty 6 Special.....	1.35
Rejected Sprouted Rejected Musty 1 C.W. Amber Durum.....	1.55
Rejected Sprouted Rejected Musty 2 C.W. Amber Durum.....	1.52
Rejected Sprouted Rejected Musty 3 C.W. Amber Durum.....	1.50
Rejected Sprouted Rejected Musty 4 C.W. Amber Durum.....	1.45
Rejected Sprouted Rejected Musty 5 C.W. Amber Durum.....	1.39
Rejected Sprouted Rejected Musty 6 C.W. Amber Durum.....	1.35
Rejected Sprouted Rejected Mixed Rotten Kernels 1 Northern.....	1.55
Rejected Sprouted Rejected Mixed Rotten Kernels 2 Northern.....	1.52
Rejected Sprouted Rejected Mixed Rotten Kernels 3 Northern.....	1.50
Rejected Sprouted Rejected Mixed Rotten Kernels 4 Northern.....	1.45
Rejected Sprouted Rejected Mixed Rotten Kernels 5 Wheat.....	1.40
Rejected Sprouted Rejected Mixed Rotten Kernels 6 Wheat.....	1.36
Rejected Sprouted Rejected Mixed Rotten Kernels Feed Wheat.....	1.34
Rejected Sprouted Rejected Mixed Rotten Kernels 4 Special.....	1.45
Rejected Sprouted Rejected Mixed Rotten Kernels 5 Special.....	1.40
Rejected Sprouted Rejected Mixed Rotten Kernels 6 Special.....	1.36
Rejected Sprouted Rejected Mixed Rotten Kernels 1 C.W. Amber Durum	1.55
Rejected Sprouted Rejected Mixed Rotten Kernels 2 C.W. Amber Durum	1.52
Rejected Sprouted Rejected Mixed Rotten Kernels 3 C.W. Amber Durum	1.50
Rejected Sprouted Rejected Mixed Rotten Kernels 4 C.W. Amber Durum	1.45
Rejected Sprouted Rejected Mixed Rotten Kernels 5 C.W. Amber Durum	1.40
Rejected Sprouted Rejected Mixed Rotten Kernels 6 C.W. Amber Durum	1.36
Rejected Sprouted Rejected Mixed Rotten Kernels 1 Alberta Red Winter	1.55
Rejected Sprouted Rejected Mixed Rotten Kernels 2 Alberta Winter..	1.54
Rejected Sprouted Rejected Mixed Rotten Kernels 3 Alberta Winter..	1.51
Rejected Sprouted Rejected Mixed Rotten Kernels 4 Alberta Winter..	1.47
Rejected Musty Rejected Mixed Heated 1 Northern.....	1.56
Rejected Musty Rejected Mixed Heated 2 Northern.....	1.53
Rejected Musty Rejected Mixed Heated 3 Northern.....	1.51
Rejected Musty Rejected Mixed Heated 4 Northern.....	1.46
Rejected Musty Rejected Mixed Heated 5 Wheat.....	1.41
Rejected Musty Rejected Mixed Heated 6 Wheat.....	1.37
Rejected Musty Rejected Mixed Heated Feed Wheat.....	1.35
Rejected Musty Rejected Mixed Heated 4 Special.....	1.46
Rejected Musty Rejected Mixed Heated 5 Special.....	1.41
Rejected Musty Rejected Mixed Heated 6 Special.....	1.37
Rejected Musty Rejected Mixed Heated 1 C.W. Amber Durum.....	1.56
Rejected Musty Rejected Mixed Heated 2 C.W. Amber Durum.....	1.53
Rejected Musty Rejected Mixed Heated 3 C.W. Amber Durum.....	1.51
Rejected Musty Rejected Mixed Heated 4 C.W. Amber Durum.....	1.46
Rejected Musty Rejected Mixed Heated 5 C.W. Amber Durum.....	1.41
Rejected Musty Rejected Mixed Heated 6 C.W. Amber Durum.....	1.37
Rejected Musty Rejected Mixed Heated 1 C.W. Garnet.....	1.51

Canadian Wheat Board Act—continued

										Payment per Bushel	
										\$	c.
Rejected	Musty	Rejected	Mixed	Heated	2	C.W.	Garnet	.....		1.49	
Rejected	Musty	Rejected	Mixed	Heated	3	C.W.	Garnet	.....		1.47	
Rejected	Musty	Rejected	Mixed	Heated	1	Alberta	Red Winter	.....		1.56	
Rejected	Musty	Rejected	Mixed	Heated	2	Alberta	Winter	.....		1.55	
Rejected	Musty	Rejected	Mixed	Heated	3	Alberta	Winter	.....		1.52	
Rejected	Musty	Rejected	Mixed	Heated	4	Alberta	Winter	.....		1.48	
Rejected	Musty	Rejected	Mixed	Heated	1	Mixed	Wheat	.....		1.42	
Rejected	Musty	Rejected	Mixed	Heated	2	Mixed	Wheat	.....		1.37	
Rejected	Musty	Rejected	Mixed	Heated	3	Mixed	Wheat	.....		1.40	
Rejected	Musty	Rejected	Mixed	Heated	4	Mixed	Wheat	.....		1.37	
Rejected	Musty	Rejected	Mixed	Heated	5	Mixed	Wheat	.....		1.42	
Rejected	Musty	Rejected	Mixed	Heated	6	Mixed	Wheat	.....		1.37	
Tough	Rejected	Musty	Rejected	Mixed	Heated	1	Northern	.....		1.54	
Tough	Rejected	Musty	Rejected	Mixed	Heated	2	Northern	.....		1.51	
Tough	Rejected	Musty	Rejected	Mixed	Heated	3	Northern	.....		1.49	
Tough	Rejected	Musty	Rejected	Mixed	Heated	4	Northern	.....		1.44	
Tough	Rejected	Musty	Rejected	Mixed	Heated	5	Wheat	.....		1.39	
Tough	Rejected	Musty	Rejected	Mixed	Heated	6	Wheat	.....		1.35	
Tough	Rejected	Musty	Rejected	Mixed	Heated	Feed	Wheat	.....		1.33	
Tough	Rejected	Musty	Rejected	Mixed	Heated	4	Special	.....		1.44	
Tough	Rejected	Musty	Rejected	Mixed	Heated	5	Special	.....		1.39	
Tough	Rejected	Musty	Rejected	Mixed	Heated	6	Special	.....		1.35	
Tough	Rejected	Musty	Rejected	Mixed	Heated	1	C.W. Amber Durum	.....		1.54	
Tough	Rejected	Musty	Rejected	Mixed	Heated	2	C.W. Amber Durum	.....		1.51	
Tough	Rejected	Musty	Rejected	Mixed	Heated	3	C.W. Amber Durum	.....		1.49	
Tough	Rejected	Musty	Rejected	Mixed	Heated	4	C.W. Amber Durum	.....		1.44	
Tough	Rejected	Musty	Rejected	Mixed	Heated	5	C.W. Amber Durum	.....		1.39	
Tough	Rejected	Musty	Rejected	Mixed	Heated	6	C.W. Amber Durum	.....		1.35	
Tough	Rejected	Musty	Rejected	Mixed	Heated	1	C.W. Garnet	.....		1.49	
Tough	Rejected	Musty	Rejected	Mixed	Heated	2	C.W. Garnet	.....		1.47	
Tough	Rejected	Musty	Rejected	Mixed	Heated	3	C.W. Garnet	.....		1.45	
Tough	Rejected	Musty	Rejected	Mixed	Heated	1	Alberta Red Winter	.....		1.54	
Tough	Rejected	Musty	Rejected	Mixed	Heated	2	Alberta Winter	.....		1.53	
Tough	Rejected	Musty	Rejected	Mixed	Heated	3	Alberta Winter	.....		1.50	
Tough	Rejected	Musty	Rejected	Mixed	Heated	4	Alberta Winter	.....		1.46	
Tough	Rejected	Musty	Rejected	Mixed	Heated	1	Mixed Wheat	.....		1.40	
Tough	Rejected	Musty	Rejected	Mixed	Heated	2	Mixed Wheat	.....		1.35	
Tough	Rejected	Musty	Rejected	Mixed	Heated	3	Mixed Wheat	.....		1.38	
Tough	Rejected	Musty	Rejected	Mixed	Heated	4	Mixed Wheat	.....		1.35	
Tough	Rejected	Musty	Rejected	Mixed	Heated	5	Mixed Wheat	.....		1.40	
Tough	Rejected	Musty	Rejected	Mixed	Heated	6	Mixed Wheat	.....		1.35	
Rejected	Musty	Rejected	Mixed	Heating	1	Northern	.....			1.54	
Rejected	Musty	Rejected	Mixed	Heating	2	Northern	.....			1.51	
Rejected	Musty	Rejected	Mixed	Heating	3	Northern	.....			1.49	
Rejected	Musty	Rejected	Mixed	Heating	4	Northern	.....			1.44	
Rejected	Musty	Rejected	Mixed	Heating	5	Wheat	.....			1.39	
Rejected	Musty	Rejected	Mixed	Heating	6	Wheat	.....			1.35	
Rejected	Musty	Rejected	Mixed	Heating	Feed	Wheat	.....			1.33	
Rejected	Musty	Rejected	Mixed	Heating	4	Special	.....			1.44	
Rejected	Musty	Rejected	Mixed	Heating	5	Special	.....			1.39	
Rejected	Musty	Rejected	Mixed	Heating	6	Special	.....			1.35	
Rejected	Musty	Rejected	Mixed	Heating	1	C.W. Amber Durum	.....			1.54	
Rejected	Musty	Rejected	Mixed	Heating	2	C.W. Amber Durum	.....			1.51	
Rejected	Musty	Rejected	Mixed	Heating	3	C.W. Amber Durum	.....			1.49	
Rejected	Musty	Rejected	Mixed	Heating	4	C.W. Amber Durum	.....			1.44	
Rejected	Musty	Rejected	Mixed	Heating	5	C.W. Amber Durum	.....			1.39	
Rejected	Musty	Rejected	Mixed	Heating	6	C.W. Amber Durum	.....			1.35	
Rejected	Musty	Rejected	Mixed	Heating	1	C.W. Garnet	.....			1.49	
Rejected	Musty	Rejected	Mixed	Heating	2	C.W. Garnet	.....			1.47	
Rejected	Musty	Rejected	Mixed	Heating	3	C.W. Garnet	.....			1.45	
Rejected	Musty	Rejected	Mixed	Heating	1	Alberta Red Winter	.....			1.54	
Rejected	Musty	Rejected	Mixed	Heating	2	Alberta Winter	.....			1.53	
Rejected	Musty	Rejected	Mixed	Heating	3	Alberta Winter	.....			1.50	
Rejected	Musty	Rejected	Mixed	Heating	4	Alberta Winter	.....			1.46	
Rejected	Musty	Rejected	Mixed	Heating	1	Mixed Wheat	.....			1.40	
Rejected	Musty	Rejected	Mixed	Heating	2	Mixed Wheat	.....			1.35	

Canadian Wheat Board Act—continued

						Payment per Bushel
						\$ c.
Rejected	Musty	Rejected	Mixed	Heating 3	Mixed Wheat.....	1.38
Rejected	Musty	Rejected	Mixed	Heating 4	Mixed Wheat.....	1.35
Rejected	Musty	Rejected	Mixed	Heating 5	Mixed Wheat.....	1.40
Rejected	Musty	Rejected	Mixed	Heating 6	Mixed Wheat.....	1.35
Tough	Rejected	Musty	Rejected	Mixed	Heating 1 Northern.....	1.52
Tough	Rejected	Musty	Rejected	Mixed	Heating 2 Northern.....	1.49
Tough	Rejected	Musty	Rejected	Mixed	Heating 3 Northern.....	1.47
Tough	Rejected	Musty	Rejected	Mixed	Heating 4 Northern.....	1.42
Tough	Rejected	Musty	Rejected	Mixed	Heating 5 Wheat.....	1.37
Tough	Rejected	Musty	Rejected	Mixed	Heating 6 Wheat.....	1.33
Tough	Rejected	Musty	Rejected	Mixed	Heating Feed Wheat.....	1.31
Tough	Rejected	Musty	Rejected	Mixed	Heating 4 Special.....	1.42
Tough	Rejected	Musty	Rejected	Mixed	Heating 5 Special.....	1.37
Tough	Rejected	Musty	Rejected	Mixed	Heating 6 Special.....	1.33
Tough	Rejected	Musty	Rejected	Mixed	Heating 1 C.W. Amber Durum	1.52
Tough	Rejected	Musty	Rejected	Mixed	Heating 2 C.W. Amber Durum	1.49
Tough	Rejected	Musty	Rejected	Mixed	Heating 3 C.W. Amber Durum	1.47
Tough	Rejected	Musty	Rejected	Mixed	Heating 4 C.W. Amber Durum	1.42
Tough	Rejected	Musty	Rejected	Mixed	Heating 5 C.W. Amber Durum	1.37
Tough	Rejected	Musty	Rejected	Mixed	Heating 6 C.W. Amber Durum	1.33
Tough	Rejected	Musty	Rejected	Mixed	Heating 1 C.W. Garnet.....	1.47
Tough	Rejected	Musty	Rejected	Mixed	Heating 2 C.W. Garnet.....	1.45
Tough	Rejected	Musty	Rejected	Mixed	Heating 3 C.W. Garnet.....	1.43
Tough	Rejected	Musty	Rejected	Mixed	Heating 1 Alberta Red Winter	1.52
Tough	Rejected	Musty	Rejected	Mixed	Heating 2 Alberta Winter...	1.51
Tough	Rejected	Musty	Rejected	Mixed	Heating 3 Alberta Winter...	1.48
Tough	Rejected	Musty	Rejected	Mixed	Heating 4 Alberta Winter...	1.44
Tough	Rejected	Musty	Rejected	Mixed	Heating 1 Mixed Wheat.....	1.38
Tough	Rejected	Musty	Rejected	Mixed	Heating 2 Mixed Wheat.....	1.33
Tough	Rejected	Musty	Rejected	Mixed	Heating 3 Mixed Wheat.....	1.36
Tough	Rejected	Musty	Rejected	Mixed	Heating 4 Mixed Wheat.....	1.33
Tough	Rejected	Musty	Rejected	Mixed	Heating 5 Mixed Wheat.....	1.38
Tough	Rejected	Musty	Rejected	Mixed	Heating 6 Mixed Wheat.....	1.33
Rejected	Rejected	Ragweed	1	Northern.....		1.54
Rejected	Rejected	Ragweed	2	Northern.....		1.51
Rejected	Rejected	Ragweed	3	Northern.....		1.49
Rejected	Rejected	Ragweed	4	Northern.....		1.44
Rejected	Rejected	Ragweed	5	Wheat.....		1.39
Rejected	Rejected	Ragweed	6	Wheat.....		1.35
Rejected	Rejected	Ragweed	Feed	Wheat.....		1.33
Rejected	Rejected	Fireburnt	1	Northern.....		1.23
Rejected	Rejected	Fireburnt	2	Northern.....		1.20
Rejected	Rejected	Fireburnt	3	Northern.....		1.18
Rejected	Rejected	Fireburnt	4	Northern.....		1.13
Rejected	Rejected	Fireburnt	5	Wheat.....		1.08
Rejected	Rejected	Fireburnt	6	Wheat.....		1.04
Rejected	Rejected	Fireburnt	Feed	Wheat.....		1.02
Tough	and Heating	1	Northern.....			1.63
Tough	and Heating	2	Northern.....			1.60
Tough	and Heating	3	Northern.....			1.58
Tough	and Heating	4	Northern.....			1.53
Tough	and Heating	5	Wheat.....			1.47
Tough	and Heating	6	Wheat.....			1.43
Tough	and Heating	Feed	Wheat.....			1.41
Tough	and Heating	4	Special.....			1.53
Tough	and Heating	5	Special.....			1.47
Tough	and Heating	6	Special.....			1.43
Tough	and Heating	1	C.W. Amber Durum			1.63
Tough	and Heating	2	C.W. Amber Durum			1.60
Tough	and Heating	3	C.W. Amber Durum			1.58
Tough	and Heating	4	C.W. Amber Durum			1.53
Tough	and Heating	5	C.W. Amber Durum			1.47
Tough	and Heating	6	C.W. Amber Durum			1.43
Tough	and Heating	1	C.W. Garnet.....			1.58
Tough	and Heating	2	C.W. Garnet.....			1.56
Tough	and Heating	3	C.W. Garnet.....			1.54

Canadian Wheat Board Act—continued

	<i>Payment per Bushel</i>
	\$ c.
Tough and Heating 1 Alberta Red Winter.....	1.63
Tough and Heating 2 Alberta Winter.....	1.62
Tough and Heating 3 Alberta Winter.....	1.59
Tough and Heating 1 Mixed Grain.....	1.32
Tough Smutty Heating 1 Northern.....	1.48
Tough Smutty Heating 2 Northern.....	1.45
Tough Smutty Heating 3 Northern.....	1.43
Tough Smutty Heating 4 Northern.....	1.38
Damp and Heating 1 Northern.....	1.55
Damp and Heating 2 Northern.....	1.52
Damp and Heating 3 Northern.....	1.50
Damp and Heating 4 Northern.....	1.45
Damp and Heating 5 Wheat.....	1.37
Damp and Heating 6 Wheat.....	1.33
Damp and Heating Feed Wheat.....	1.31
Damp and Heating 4 Special.....	1.45
Damp and Heating 5 Special.....	1.37
Damp and Heating 6 Special.....	1.33
Damp and Heating 1 C.W. Amber Durum.....	1.55
Damp and Heating 2 C.W. Amber Durum.....	1.52
Damp and Heating 3 C.W. Amber Durum.....	1.50
Damp and Heating 4 C.W. Amber Durum.....	1.45
Damp and Heating 5 C.W. Amber Durum.....	1.37
Damp and Heating 6 C.W. Amber Durum.....	1.33
No. 1 C.W. White Spring.....	1.75
No. 2 C.W. White Spring.....	1.74
No. 3 C.W. White Spring.....	1.71
No. 4 C.W. White Spring.....	1.67
No. 1 C.W. Soft White Spring.....	1.75
No. 2 C.W. Soft White Spring.....	1.74
No. 3 C.W. Soft White Spring.....	1.71
No. 4 C.W. Soft White Spring.....	1.67
Tough 1 C.W. White Spring.....	1.72
Tough 2 C.W. White Spring.....	1.71
Tough 3 C.W. White Spring.....	1.68
Tough 4 C.W. White Spring.....	1.64
Tough 1 C.W. Soft White Spring.....	1.72
Tough 2 C.W. Soft White Spring.....	1.71
Tough 3 C.W. Soft White Spring.....	1.68
Tough 4 C.W. Soft White Spring.....	1.64
Smutty 1 C.W. White Spring.....	1.60
Smutty 2 C.W. White Spring.....	1.59
Smutty 3 C.W. White Spring.....	1.56
Smutty 4 C.W. White Spring.....	1.52
Smutty 1 C.W. Soft White Spring.....	1.60
Smutty 2 C.W. Soft White Spring.....	1.59
Smutty 3 C.W. Soft White Spring.....	1.56
Smutty 4 C.W. Soft White Spring.....	1.52
Tough Smutty 1 C.W. White Spring.....	1.57
Tough Smutty 2 C.W. White Spring.....	1.56
Tough Smutty 3 C.W. White Spring.....	1.53
Tough Smutty 4 C.W. White Spring.....	1.49
Tough Smutty 1 C.W. Soft White Spring.....	1.57
Tough Smutty 2 C.W. Soft White Spring.....	1.56
Tough Smutty 3 C.W. Soft White Spring.....	1.53
Tough Smutty 4 C.W. Soft White Spring.....	1.49
Rejected 1 C.W. White Spring.....	1.64
Rejected 2 C.W. White Spring.....	1.63
Rejected 3 C.W. White Spring.....	1.60
Rejected 4 C.W. White Spring.....	1.56
Rejected 1 C.W. Soft White Spring.....	1.64

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Rejected 2 C.W. Soft White Spring.....	1.63
Rejected 3 C.W. Soft White Spring.....	1.60
Rejected 4 C.W. Soft White Spring.....	1.56
Tough Rejected 1 C.W. White Spring.....	1.61
Tough Rejected 2 C.W. White Spring.....	1.60
Tough Rejected 3 C.W. White Spring.....	1.57
Tough Rejected 4 C.W. White Spring.....	1.53
Tough Rejected 1 C.W. Soft White Spring.....	1.61
Tough Rejected 2 C.W. Soft White Spring.....	1.60
Tough Rejected 3 C.W. Soft White Spring.....	1.57
Tough Rejected 4 C.W. Soft White Spring.....	1.53
Rejected Sprouted 1 C.W. White Spring.....	1.65
Rejected Sprouted 2 C.W. White Spring.....	1.64
Rejected Sprouted 3 C.W. White Spring.....	1.61
Rejected Sprouted 4 C.W. White Spring.....	1.57
Rejected Sprouted 1 C.W. Soft White Spring.....	1.65
Rejected Sprouted 2 C.W. Soft White Spring.....	1.64
Rejected Sprouted 3 C.W. Soft White Spring.....	1.61
Rejected Sprouted 4 C.W. Soft White Spring.....	1.57
Tough Rejected Sprouted 1 C.W. White Spring.....	1.62
Tough Rejected Sprouted 2 C.W. White Spring.....	1.61
Tough Rejected Sprouted 3 C.W. White Spring.....	1.58
Tough Rejected Sprouted 4 C.W. White Spring.....	1.54
Tough Rejected Sprouted 1 C.W. Soft White Spring.....	1.62
Tough Rejected Sprouted 2 C.W. Soft White Spring.....	1.61
Tough Rejected Sprouted 3 C.W. Soft White Spring.....	1.58
Tough Rejected Sprouted 4 C.W. Soft White Spring.....	1.54
Smutty Rejected 1 C.W. White Spring.....	1.56
Smutty Rejected 2 C.W. White Spring.....	1.55
Smutty Rejected 3 C.W. White Spring.....	1.52
Smutty Rejected 4 C.W. White Spring.....	1.48
Smutty Rejected 1 C.W. Soft White Spring.....	1.56
Smutty Rejected 2 C.W. Soft White Spring.....	1.55
Smutty Rejected 3 C.W. Soft White Spring.....	1.52
Smutty Rejected 4 C.W. Soft White Spring.....	1.48
Tough Smutty Rejected 1 C.W. White Spring.....	1.53
Tough Smutty Rejected 2 C.W. White Spring.....	1.52
Tough Smutty Rejected 3 C.W. White Spring.....	1.49
Tough Smutty Rejected 4 C.W. White Spring.....	1.45
Tough Smutty Rejected 1 C.W. Soft White Spring.....	1.53
Tough Smutty Rejected 2 C.W. Soft White Spring.....	1.52
Tough Smutty Rejected 3 C.W. Soft White Spring.....	1.49
Tough Smutty Rejected 4 C.W. Soft White Spring.....	1.45
Rejected Mixed Heated 1 C.W. White Spring.....	1.61
Rejected Mixed Heated 2 C.W. White Spring.....	1.60
Rejected Mixed Heated 3 C.W. White Spring.....	1.57
Rejected Mixed Heated 4 C.W. White Spring.....	1.53
Rejected Mixed Heated 1 C.W. Soft White Spring.....	1.61
Rejected Mixed Heated 2 C.W. Soft White Spring.....	1.60
Rejected Mixed Heated 3 C.W. Soft White Spring.....	1.57
Rejected Mixed Heated 4 C.W. Soft White Spring.....	1.53
Tough Rejected Mixed Heated 1 C.W. White Spring.....	1.58
Tough Rejected Mixed Heated 2 C.W. White Spring.....	1.57
Tough Rejected Mixed Heated 3 C.W. White Spring.....	1.54
Tough Rejected Mixed Heated 4 C.W. White Spring.....	1.50
Tough Rejected Mixed Heated 1 C.W. Soft White Spring.....	1.58
Tough Rejected Mixed Heated 2 C.W. Soft White Spring.....	1.57
Tough Rejected Mixed Heated 3 C.W. Soft White Spring.....	1.54
Tough Rejected Mixed Heated 4 C.W. Soft White Spring.....	1.50

Canadian Wheat Board Act—continued

The following payments per bushel for Sample Red Spring Wheat, Sample Amber Durum Wheat, Sample Alberta Winter Wheat, Sample Garnet Wheat and Sample Mixed Wheat were also fixed by the Board as follows:

	<i>Payment per Bushel</i>
	\$ c.
And Broken Wheat	1.45
Broken	1.45
Broken Durum and Durum	1.35
Broken and Heated	1.32
Mixed Heated	1.32
Heated and Heating	1.30
Heated and Sour	1.32
Heated Sour and Heating	1.30
Heated and Musty	1.31
Heated and Rotten Kernels	1.31
Heated Mixed Ergot	1.25
Heated Mixed Gravel and Cinders	1.05
Rotten Kernels	1.32
Rotten Kernels and Heating	1.30
Sprouted and Rotten Kernels	1.32
Rotten Kernels Sour	1.31
Sour Rotten Kernels Heating	1.30
Rotten Kernels Mildewed	1.30
Musty	1.30
Tartarian Buckwheat	1.35
Fireburnt	1.05
Ragweed	1.30
Gravel and Cinders	1.10
Earth	1.30
Earth and Heated	1.25
Earth and Heating	1.23
Hedge Bind Wheat	1.30
Weed Stain	1.37
Rye and Heated	1.32
Tough and Broken Wheat	1.43
Tough Broken	1.43
Tough Broken Durum and Durum	1.33
Tough Broken and Heated	1.30
Tough Mixed Heated	1.30
Tough Heated and Heating	1.28
Tough Heated and Sour	1.30
Tough Heated Sour and Heating	1.28
Tough Heated and Musty	1.29
Tough Heated and Rotten Kernels	1.29
Tough Heated Mixed Ergot	1.23
Tough Heated Mixed Gravel and Cinders	1.03
Tough Rotten Kernels	1.30
Tough Rotten Kernels and Heating	1.28
Tough Sprouted and Rotten Kernels	1.30
Tough Rotten Kernels Sour	1.29
Tough Sour Rotten Kernels Heating	1.28
Tough Rotten Kernels Mildewed	1.28
Tough Musty	1.28
Tough Tartarian Buckwheat	1.33
Tough Fireburnt	1.03
Tough Ragweed	1.28
Tough Gravel and Cinders	1.08
Tough Earth	1.28
Tough Earth and Heated	1.23
Tough Earth and Heating	1.21
Tough Hedge Bind Wheat	1.28
Tough Weed Stain	1.35
Tough Rye and Heated	1.30
Smutty and Broken Wheat	1.35
Smutty Broken	1.35

Canadian Wheat Board Act—continued

	Payment per Bushel \$ c.
Smutty Broken Durum and Durum.....	1.25
Smutty Broken and Heated.....	1.22
Smutty Mixed Heated.....	1.22
Smutty Heated and Heating.....	1.20
Smutty Heated and Sour.....	1.22
Smutty Heated Sour and Heating.....	1.20
Smutty Heated and Musty.....	1.21
Smutty Heated and Rotten Kernels.....	1.21
Smutty Heated Mixed Ergot.....	1.15
Smutty Heated Mixed Gravel and Cinders.....	.95
Smutty Rotten Kernels.....	1.22
Smutty Rotten Kernels and Heating.....	1.20
Smutty Sprouted and Rotten Kernels.....	1.22
Smutty Rotten Kernels Sour.....	1.21
Smutty Sour Rotten Kernels Heating.....	1.20
Smutty Rotten Kernels Mildewed.....	1.20
Smutty Musty.....	1.20
Smutty Tartarian Buckwheat.....	1.25
Smutty Fireburnt.....	.95
Smutty Ragweed.....	1.20
Smutty Gravel and Cinders.....	1.00
Smutty Earth.....	1.20
Smutty Earth and Heated.....	1.15
Smutty Earth and Heating.....	1.13
Smutty Hedge Bind Wheat.....	1.20
Smutty Weed Stain.....	1.27
Smutty Rye and Heated.....	1.22
Tough Smutty and Broken Wheat.....	1.33
Tough Smutty Broken.....	1.33
Tough Smutty Broken Durum and Durum.....	1.23
Tough Smutty Broken and Heated.....	1.20
Tough Smutty Mixed Heated.....	1.20
Tough Smutty Heated and Heating.....	1.18
Tough Smutty Heated and Sour.....	1.20
Tough Smutty Heated Sour and Heating.....	1.18
Tough Smutty Heated and Musty.....	1.19
Tough Smutty Heated and Rotten Kernels.....	1.19
Tough Smutty Heated Mixed Ergot.....	1.13
Tough Smutty Heated Mixed Gravel and Cinders.....	.93
Tough Smutty Rotten Kernels.....	1.20
Tough Smutty Rotten Kernels and Heating.....	1.18
Tough Smutty Sprouted and Rotten Kernels.....	1.20
Tough Smutty Rotten Kernels Sour.....	1.19
Tough Smutty Sour Rotten Kernels Heating.....	1.18
Tough Smutty Rotten Kernels Mildewed.....	1.18
Tough Smutty Musty.....	1.18
Tough Smutty Tartarian Buckwheat.....	1.23
Tough Smutty Fireburnt.....	.93
Tough Smutty Ragweed.....	1.18
Tough Smutty Gravel and Cinders.....	.98
Tough Smutty Earth.....	1.18
Tough Smutty Earth and Heated.....	1.13
Tough Smutty Earth and Heating.....	1.11
Tough Smutty Hedge Bind Wheat.....	1.18
Tough Smutty Weed Stain.....	1.25
Tough Smutty Rye and Heated.....	1.20
Sample 1 Mixed Grain.....	1.30
Sample 1 Mixed Grain Broken.....	1.25
Sample 1 Mixed Grain a/c Tartarian Buckwheat.....	1.30
Sample 1 Mixed Grain Mixed Heated.....	1.25
Sample 1 Mixed Grain Heated and Heating.....	1.23
Sample 1 Mixed Grain Heated and Rotten Kernels.....	1.24
Sample 1 Mixed Grain Heated and Earth.....	1.20
Tough Sample 1 Mixed Grain.....	1.28
Tough Sample 1 Mixed Grain Broken.....	1.23
Tough Sample 1 Mixed Grain a/c Tartarian Buckwheat.....	1.28

Canadian Wheat Board Act—continued

	<i>Payment per Bushel</i> \$ c.
Tough Sample 1 Mixed Grain Mixed Heated.....	1.23
Tough Sample 1 Mixed Grain Heated and Heating.....	1.21
Tough Sample 1 Mixed Grain Heated and Rotten Kernels.....	1.22
Tough Sample 1 Mixed Grain Heated and Earth.....	1.18

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and by virtue of the powers conferred by The Canadian Wheat Board Act, 1935, is pleased to revoke and doth hereby revoke Order in Council P.C. 1411 of 25th March 1949, effective the 1st day of August 1949, and doth hereby approve the above sums to be paid to producers as aforesaid as fixed by the Canadian Wheat Board in accordance with the provisions of the said Act.

N. A. ROBERTSON,
Clerk of the Privy Council.

7. Fixing sum payable for additional grades of oats and barley

P.C. 6231

AT THE GOVERNMENT HOUSE AT OTTAWA

TUESDAY, the 13th day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

WHEREAS paragraph (b) of subsection (1) of section 21 of The Canadian Wheat Board Act, 1935, as extended to apply to oats and barley by Order in Council P.C. 3713 of the 20th day of July, 1949, made pursuant to section 29A of the said Act, requires The Canadian Wheat Board to pay to producers selling and delivering oats or barley produced in the designated area to the Board at the time of delivery or at any time thereafter, as may be agreed upon, a sum certain per bushel basis in store Fort William/Port Arthur to be fixed by regulation from time to time by the Governor General in Council in respect of oats of the grade Number Two Canada Western and in respect of barley of the grade Number Three Canada Western Six Row and by the Board with the approval of the Governor General in Council in respect of each other grade of oats and barley;

AND WHEREAS by the said Order in Council P.C. 3713, the Governor General in Council fixed the sum certain per bushel for oats of the grade Number Two Canada Western at Sixty-five (65c) per bushel basis in store Fort William/Port Arthur and fixed the sum certain per bushel for barley of the grade Number Three Canada Western Six Row at Ninety-three cents (93c) per bushel, basis in store Fort William/Port Arthur;

AND WHEREAS the said Board duly fixed the sums certain to be paid on the said basis to producers delivering to the Board oats or barley of certain grades, which sums and grades were approved by Orders in Council of 10th August, 1949, P.C. 4011 and 16th September, 1949, P.C. 4727;

AND WHEREAS the said Board at a meeting held in the City of Winnipeg on the 9th day of November, 1949, in accordance with said Act, duly fixed the following sums certain per bushel basis in store Fort William/Port Arthur as the amounts to be paid to producers delivering to the said Board, oats and barley of the grades listed below, during the period commencing on

Canadian Wheat Board Act—continued

the 1st day of August, 1949, and expiring on the 31st day of July, 1950, in substitution of any sums certain heretofore fixed by the said Board for oats and barley:

BARLEY

Grade	Straight Grade	Tough	Damp
1 C.W. 6 Row Barley .....	.95	.90	.85
2 C.W. 6 Row Barley .....	.95	.90	.85
1 C.W. 2 Row Barley .....	.93	.88	.83
2 C.W. 2 Row Barley .....	.93	.88	.83
3 C.W. 6 Row Barley .....	.93	.88	.83
2 C.W. Yellow Barley .....	.91	.86	.81
3 C.W. Yellow Barley .....	.89	.84	.79
1 Feed Barley .....	.87	.84	.79
2 Feed Barley .....	.83	.80	.75
3 Feed Barley .....	.79	.76	.71
3 Mixed Grain .....	.70	.67	.62
1 C.W. 6 Row Barley Heating .....	.88	.83	.78
2 C.W. 6 Row Barley Heating .....	.88	.83	.78
1 C.W. 2 Row Barley Heating .....	.86	.81	.76
2 C.W. 2 Row Barley Heating .....	.86	.81	.76
3 C.W. 6 Row Barley Heating .....	.86	.81	.76
2 C.W. Yellow Barley Heating .....	.84	.79	.74
3 C.W. Yellow Barley Heating .....	.82	.77	.72
1 Feed Barley Heating .....	.80	.77	.72
2 Feed Barley Heating .....	.76	.73	.68
3 Feed Barley Heating .....	.72	.69	.64
3 Mixed Grain Heating .....	.63	.60	.55
Rejected Barley Heated .....	.69	.66	.61
Rejected Barley Heated and Heating .....	.69	.66	.61
Rejected Barley Mixed Tartarian Buckwheat ....	.69	.66	.61
Rejected Barley Mixed Fireburnt .....	.65	.62	.57
Rejected Barley Mixed Ergot .....	.65	.62	.57
Sample Barley Mixed Tartarian Buckwheat ....	.69	.66	.61
Sample Barley Heated .....	.69	.66	.61
Sample Barley Heated and Heating .....	.69	.66	.61
Sample Barley Fireburnt .....	.65	.62	.57
Sample Barley Mixed Ergot .....	.65	.62	.57
Sample Barley Smutty .....	.65	.62	.57
Sample 3 Mixed Grain Heated .....	.60	.57	.52
Sample 3 Mixed Grain Heated and Heating ....	.60	.57	.52

OATS

2 C.W. Oats .....	.65	.62	.57
Extra 3 C.W. Oats .....	.62	.59	.54
3 C.W. Oats .....	.62	.59	.54
Extra 1 Feed Oats .....	.62	.59	.54
1 Feed Oats .....	.60	.57	.52
2 Feed Oats .....	.55	.52	.47
3 Feed Oats .....	.50	.47	.42
Mixed Feed Oats .....	.40	.37	.32
2 C.W. Oats Heating .....	.58	.55	
2 Extra 3 C.W. Oats Heating .....	.55	.52	
3 C.W. Oats Heating .....	.55	.52	
Extra 1 Feed Oats Heating .....	.55	.52	
1 Feed Oats Heating .....	.53	.50	
2 Feed Oats Heating .....	.48	.45	
3 Feed Oats Heating .....	.43	.40	
Mixed Feed Oats Heating .....	.33	.30	
Rejected Oats Mixed Heated .....	.45		
Rejected Oats Mixed Heated and Heating .....	.45		
Tough Rejected Oats Mixed Heated and Heating ..	.42		
Rejected Oats a/c Weed Stain .....	.45		
Rejected Oats a/c Thistle Tops .....	.45		
Rejected Oats Mixed Fireburnt .....	.42		
Rejected Oats a/c Tartarian Buckwheat .....	.45		
Rejected Oats Mixed With Gravel .....	.40		
Sample Oats Heated .....	.45		
Sample Oats Heated and Heating .....	.45		
Tough Sample Oats Heated and Heating .....	.42		
Sample Oats Smutty .....	.35		
Sample Oats a/c Weed Stain .....	.45		
Sample Oats a/c Thistle Top .....	.45		
Damp Sample Oats Mixed Heated—Mixed Thistle Tops .....	.32		

Canadian Wheat Board Act—concluded

THEREFORE, His Excellency the Governor General in Council, on the recommendation of the Minister of Trade and Commerce and by virtue of the powers conferred by The Canadian Wheat Board Act, 1935, is pleased, hereby, to revoke Orders in Council P.C. 4011 of 10th August, 1949, and P.C. 4727 of 16th September, 1949, and to approve the above sums to be paid to producers as aforesaid as fixed by the Canadian Wheat Board in accordance with the provisions of the said Act. •

N. A. ROBERTSON,
Clerk of the Privy Council.

WHEAT CO-OPERATIVE MARKETING ACT, 1939. (1939, c. 34)

No statutory orders or regulations have been made under this statute.

WHITE PHOSPHOROUS MATCHES ACT. (R.S.C., 1927, c. 128)

No statutory orders or regulations have been made under this statute.

WOOL GRADING, REGULATIONS RESPECTING

See LIVE STOCK AND LIVE STOCK PRODUCTS ACT.

YOUTH TRAINING ACT, 1939. (1939, c. 35)

No statutory orders or regulations have been made under this statute.

YUKON ACT. (R.S.C., 1927, c. 215)

See also DOMINION LANDS ACT; LAND TITLES ACT; ORDINANCES, YUKON TERRITORY.

**Tariff of fees applicable to criminal cases and Inquests in the
Yukon Territory**

P.C. 6423

AT THE GOVERNMENT HOUSE AT OTTAWA

THURSDAY, the 29th day of December, 1949.

PRESENT:

HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL

His Excellency the Governor General in Council, on the recommendation of the Minister of Justice and pursuant to the powers conferred by the Yukon Act, Revised Statutes of Canada, 1927, chapter 215, is pleased, hereby, to revoke the tariffs of fees payable in the Yukon Territory in connection with criminal cases and inquests, established by Orders in Council

Yukon Act—continued

P.C. 2349 of 8th October, 1900, and P.C. 49/1195 of 3rd June, 1901, and to make the following tariff of fees applicable to criminal cases and inquests in the Yukon Territory, and the said tariff of fees is hereby made and established in substitution for the tariffs of fees hereby revoked:

TARIFF OF FEES APPLICABLE TO CRIMINAL CASES AND INQUESTS IN THE
YUKON TERRITORY

1. Jurors

- | | |
|---|---------|
| (a) For each day while necessarily engaged in going to, attending at, or returning from any criminal proceedings or inquest | \$ 5.00 |
| (b) For each mile necessarily travelled, going and coming from residence to place of proceedings or inquest | .25 |

2. Interpreters

- | | |
|---|------|
| (a) For each day actually engaged as interpreters | 5.00 |
| (b) For each mile necessarily travelled by means other than railway, going and coming from residence to place of proceedings or inquest | .25 |
| (c) Travelling expenses by railway, the actual fare paid. | |

3. Witnesses

- | | |
|---|-------|
| (a) For each day while necessarily engaged in going to, attending at, or returning from any criminal proceedings or inquest when residence is within two miles of place of proceedings or inquest | 4.00 |
| (b) For each day while necessarily engaged in going to, attending at, or returning from any criminal proceedings or inquest when residence is over two miles from place of proceedings or inquest | 5.00 |
| (c) For each mile necessarily travelled by a means other than railway, going and coming from residence to place of proceedings or inquest | .25 |
| (d) Travelling expenses by railway, the actual fare paid. | |
| (e) Professional men called to testify by the Crown may be allowed for each day in attendance and in addition to travelling expenses allowed in (c) or (d), as the case may be | 25.00 |

4. Coroners

- | | |
|--|-------|
| (a) For taking inquisitions | 25.00 |
| (b) Summoning jury | .50 |
| (c) Empanelling jury | 1.00 |
| (d) Summons for witness, each | .25 |
| (e) Warrants for arrest, each | 1.00 |
| (f) When a coroner uses his own motor vehicle in connection with any proceeding he will be allowed, per mile, for the distance necessarily travelled the sum of | .15 |
| (g) When it is necessary for a coroner to travel by air or water, the authority of the Commissioner of the Yukon Territory must first be obtained, otherwise the expenses may not be approved. | |

Yukon Act—concluded**4. Coroners—con.**

(h) All necessary travelling expenses, hotels, meals, or other services shall, if possible, be covered by proper vouchers which are to be attached to the account and the account will be submitted by the Commissioner to the Deputy Minister of Justice for taxation.

5. Post Mortem Examinations

The physician or surgeon who makes any post mortem examination to determine the cause of a death may be paid a fee of \$50.00

6. Stenographers

(a) For each day attending to record testimony, the sum of .. 10.00
 (b) For transcribing evidence, per folio..... .15
 (c) For each additional copy, per folio10

7. Civil Servants

The fees prescribed herein shall not be paid to any juror, interpreter, witness, coroner, stenographer or medical officer who is a Civil Servant.

N. A. ROBERTSON,
Clerk of the Privy Council.

YUKON PLACER MINING ACT. (R.S.C., 1927, c. 216)

1. *Proclamation establishing mining districts.*
2. *Schedule of representation work.*
3. *Board of Arbitrators, rules of procedure.*

1. Proclamation of Controller establishing mining districts

DAWSON, Y.T.

CANADA
 YUKON TERRITORY
 TO WIT

OFFICE OF THE CONTROLLER OF THE YUKON TERRITORY**PROCLAMATION**

Under and by virtue of the authority vested in the Commissioner of the Yukon Territory by section 4 of the Yukon Placer Mining Act, it is hereby declared and proclaimed that from and after the 1st day of July A.D. 1947, the following shall be the boundaries of the respective mining districts in the Yukon Territory:

1. Dawson Mining District. Commencing at the most northerly extremity of the International Boundary between the Territory of Alaska and the Yukon Territory and thence in a southerly direction along said boundary to a point where the 63rd parallel of north latitude intersects the said boundary; thence following the height of land around the head waters of Scotty Creek in a clockwise direction, and continuing along the

Yukon Placer Mining Act—continued

said height of land between Scotty Creek and White River in a southeasterly direction to a spur thereof, thence along said spur in easterly and northeasterly direction to a point on the left bank of the White River, said point being six miles below the settlement of Donjek; thence directly across the White River to the right bank; thence upstream along the right bank of the White River to the confluence of the Donjek River; thence upstream along the right bank of the Donjek River to the confluence of the Klotassin River; thence upstream on the right bank of the Klotassin River to the confluence of Dip Creek; thence upstream along the right bank of Dip Creek to the confluence of Casino Creek; thence northeasterly along the height of land between Casino Creek and its tributaries on the north-west and Rude Creek and its tributaries on the south-east, continuing northerly along the height of land between Britannia Creek and its tributaries on the west and Isaac Creek and its tributaries on the east, intersecting the left bank of the Yukon River at a point four miles below the mouth of Isaac Creek; thence directly across the Yukon River to the right bank; thence upstream along the right bank of the Yukon River to the confluence of the Pelly River; thence upstream along the right bank of the Pelly River to Pelly Crossing; thence northerly for a distance of approximately twenty-five miles along the existing Minto-Mayo overland trail; thence northwesterly along the height of land between Crooked Creek and its tributaries on the East and Lake Creek and passing on the northeast side of Reid Lakes to the junction of the McQuesten River and the Stewart River; thence directly across the Stewart River to the right bank; thence following the height of land which parallels the McQuesten River and the north fork of the McQuesten River and continues in a generally northerly direction between the Wind and Hart Rivers to the right bank of the Peel River; thence directly across the Peel River along the height of land between Dalglish Creek and Canyon Creek, northerly tributaries of the Peel River, to the height of land which is the source of said Canyon Creek; thence turning in a generally easterly direction along the said last mentioned height of land which lies immediately north of the 66th parallel of north latitude to the Peel River; thence in a generally southerly direction along the left bank of the Peel River to the said 66th parallel; thence easterly along the said 66th parallel to the boundary between the Yukon Territory and the Northwest Territories; thence in a general northwesterly direction along said boundary to the Beaufort Sea; thence along the most northerly coast line of the Yukon Territory to the point of commencement.

2. *Whitehorse Mining District.* Commencing at a point on the boundary between the Yukon Territory and the Northwest Territories situate on the median line of MacMillan Pass; thence in a general southeasterly direction along said boundary to its intersection with the boundary of British Columbia; thence in a westerly direction along the most southerly boundary of the Yukon Territory to its intersection with the boundary of the Territory of Alaska; thence following the most westerly boundary of the Yukon Territory to its intersection with the 63rd parallel of north latitude; thence following the height of land around the head waters of Scotty Creek in a clockwise direction, and continuing along the said height of land between Scotty Creek and White River in a southeasterly direction to a spur thereof, thence along said spur in easterly and northeasterly direction to a point on the left bank of the White River, said point being six miles below the settlement of Donjek; thence directly across the White

Yukon Placer Mining Act—continued

River to the right bank; thence upstream along the right bank of the White River to the confluence of the Donjek River; thence upstream along the right bank of the Donjek River to the confluence of the Klotassin River; thence upstream on the right bank of the Klotassin River to the confluence of Dip Creek; thence upstream along the right bank of Dip Creek to the confluence of Casino Creek; thence northeasterly along the height of land between Casino Creek and its tributaries on the northwest and Rude Creek and its tributaries on the southeast, continuing northerly along the height of land between Britannia Creek and its tributaries on the west and Isaac Creek and its tributaries on the east, intersecting the left bank of the Yukon River at a point four miles below the mouth of Isaac Creek; thence directly across the Yukon River to the right bank; thence upstream along the right bank of the Yukon River to the confluence of the Pelly River; thence upstream along the right bank of the Pelly River to the confluence of the MacMillan River; thence upstream along the right bank of the MacMillan River to the confluence of the north fork and the south fork of the MacMillan River; thence upstream along the right bank of the south fork of the MacMillan River to the Canol road; thence along the Canol road to the point of commencement.

3. Mayo Mining District. Commencing at a point on the boundary between the Yukon Territory and the Northwest Territories, where the median line of MacMillan Pass intersects said boundary; thence in a general northerly direction along the said boundary to the point where the 66th parallel of north latitude intersects said boundary; thence westerly along the said 66th parallel to the left bank of the Peel River; thence northerly along the said left bank to the easterly extension of the height of land which is the source of the northerly tributaries of the Peel River; thence westerly along said height of land to the source of Canyon Creek; thence in a general southerly direction along the height of land between the Wind and Hart Rivers and its extension which parallels the north fork of the McQuesten River to the junction of the McQuesten River and the Stewart River; thence crossing the Stewart River and following in a southwesterly direction the height of land between Lake Creek and its tributaries on the southwest and Crooked Creek and its tributaries on the northeast passing Reid Lakes on the north, to a point on the existing Mayo-Minto overland trail distant approximately twenty-five miles from Pelly Crossing; thence southerly along said overland trail to Pelly Crossing; thence upstream along the right bank of the Pelly River to the confluence of the MacMillan River; thence upstream along the right bank of the MacMillan River to the confluence of the north fork and the south fork of the MacMillan River; thence upstream along the right bank of the south fork of the MacMillan River to the Canol road; thence along the Canol road to the point of commencement.

In the foregoing descriptions, the term "left bank" means the river bank upon the left and the term "right bank" means the river bank upon the right when facing downstream.

Dated at Dawson, Yukon Territory this 1st day of June A.D. 1947.

J. E. GIBBEN,
Acting Controller.

NOTE: The above proclamation was published in the *Yukon Gazette* on June 12th, 1947, pursuant to section 4 of the Yukon Placer Mining Act.

Yukon Placer Mining Act—continued

**2. Schedule of representation work under Section 41 of
The Yukon Placer Mining Act**

SHAFT SINKING

For first ten feet in depth,	\$ 2 00 per running foot of dirt removed.
For second ten feet in depth,	4 00 per running foot of dirt removed.
For third ten feet in depth,	6 00 per running foot of dirt removed.
For fourth ten feet in depth,	8 00 per running foot of dirt removed.
Below forty feet in depth,	10 00 per running foot of dirt removed.

TUNNELLING

- (a) In unfrozen ground, for first (25) twenty-five feet, \$2.00 per running foot. Beyond (25) twenty-five feet, \$3.00 per running foot.
- (b) In frozen ground, for first (25) twenty-five feet, \$3.00 per running foot. Beyond (25) twenty-five feet, \$4.00 per running foot.

DRIFTING FROM SHAFT

- (a) In unfrozen ground, \$2.00 per running foot.
- (b) In frozen ground, \$3.00 per running foot.

There shall be allowed, in addition, one dollar per running foot for every ten feet in depth of the shaft from which the drift is run. In measuring of the drift each running foot shall have a width of four feet, and where the drift is of a greater width, allowance shall be made for such additional work on a basis of each running foot having a width of four feet.

TIMBERING

In shaft, \$3.00 per running foot.
In drift or tunnel, \$2.00 per running foot.

OPEN CUTTING

- (a) Ground sluicing, 50c per cubic yard of dirt removed.
- (b) Stripping (by scraper), 75c per cubic yard of dirt removed.
- (c) Hand shovelling, \$1.75 per cubic yard of dirt removed.

DRILLING

In all cases, including both steam and hand-drilling the actual cost of such work.

HYDRAULICING, DREDGING AND STEAM-SHOVELLING

Fifty cents per cubic yard.

WOOD

The cutting and hauling of wood outside the limits of a placer claim shall not be allowed as representation work, as the cost of such is already provided for in the various classifications of work set out above.

Yukon Placer Mining Act—continued

UNPROVIDED CASES

Other minerlike work for which special provision is not made shall be allowed at the actual cost, but for ordinary labour \$7.50 per day per man employed shall be allowed.

All mining operations for the purpose of representing claims shall be done in a minerlike manner.

APPROVED:

GEORGE BLACK,
Commissioner.

GEORGE P. MACKENZIE,
Gold Commissioner.

May 21, 1913.

NOTE: *Section 41 was renumbered section 40 in The Yukon Placer Mining Act, chap. 216, R.S.C. 1927.*

3. Rules of Procedure for Board of Arbitrators

1. The notice to be given by the Gold Commissioner under section 74 of the Act to any owner or lessee for the appointment of an Arbitrator shall be in writing and shall be forwarded to the complainant to be served and a copy thereof shall be served on each such owner or lessee personally and there shall be attached to said notice and to each copy served a copy of the statement of the matter complained of filed with the Gold Commissioner. Proof of such service if required may be made by affidavit.

2. Where personal service of any notice or other document or proceeding is required and it is made to appear to the Gold Commissioner or Board of Arbitrators that prompt personal service cannot be effected, the Gold Commissioner or Board of Arbitrators may make such order for substitutional service as may be deemed just.

3. In case of refusal or neglect by any owner or lessee after notice to appoint an Arbitrator the Gold Commissioner upon the written request by any Arbitrator appointed or by any interested owner or lessee and upon being furnished with proof of service of such notice shall appoint such Arbitrator or Arbitrators.

4. In the case of any even number of Arbitrators being unable to agree upon or failing in the appointment of the additional Arbitrator as provided by subsection 2 of section 74 the request to the Gold Commissioner for the appointment of such additional Arbitrator shall be in writing signed by the Arbitrator or Arbitrators or by the owner or lessee making such request.

5. The Board of Arbitrators when so constituted shall within five days fix a time and place for hearing the matters in dispute and not less than seven days notice of such time and place shall be given by the Arbitrators to all parties to the dispute, unless all parties to the dispute agree upon an earlier date for such hearing.

6. All parties to the dispute may appear in person and may be represented by Agent or Counsel.

Yukon Placer Mining Act—continued

7. The evidence of each witness examined on any such hearing shall be given under oath or affirmation and shall be taken down in writing and shall be read over to and subscribed by the witness. Provided that when so desired by either party the evidence may be taken in shorthand by such person as the Board of Arbitrators may agree upon, who shall before entering upon his duties be sworn before one of the said Board to the faithful discharge of his duties as such stenographer. When such evidence is so taken in shorthand it shall not be necessary that it be read over and signed by the witness. The evidence shall upon request of any one having an interest in the subject-matter of the arbitration, be extended and type-written and certified by the stenographer as being the complete and correct evidence given. The oath or affirmation to be administered to a witness or to the stenographer may be administered by any member of the Board of Arbitrators and shall be in the following form, (a) or (b) for the witness, and (c) for the stenographer:

- (a) The evidence you shall give upon this examination shall be the truth, the whole truth and nothing but the truth, So Help you God.
- (b) You do solemnly, sincerely and truthfully affirm that the evidence you shall give on this examination shall be the truth, the whole truth and nothing but the truth.
- (c) You do sincerely promise and swear that you will to the best of your skill and knowledge truly and faithfully report and transcribe the examination and evidence of all witnesses who may be examined or give evidence upon the hearing of this arbitration. So Help you God.

8. The arbitrators, parties, counsel and witnesses may examine the property in dispute. The witnesses shall be sworn before proceeding to the said property and may be examined on the ground touching any of the matters in dispute. The Arbitrators may call and examine such witnesses as they see fit in addition to those presented by the parties.

9. The judgment of the said Board which shall be in writing shall be filed in the Office of the Mining Recorder and a copy of such judgment together with the evidence taken at the hearing including documentary evidence shall within twenty days after the finding of such judgment by the Arbitrators be filed in the Office of the Gold Commissioner.

10. Notice of Appeal shall be filed in the Office of the Mining Recorder in whose district the property in question is situate, in the Office of the Gold Commissioner, and served upon the respondent, as provided by these rules, within twenty days from the date upon which the judgment appealed from is signed, entered or pronounced, or within such further time as the Gold Commissioner or Judge of the Territorial Court may from time to time allow.

11. The appellant shall, upon filing of the notice of appeal, deposit with the Gold Commissioner the sum of two hundred dollars, or deposit a bond in the penal sum of two hundred dollars with two sufficient sureties to the satisfaction of the Gold Commissioner, as security for the respondent's costs of the arbitration and of the appeal, and shall at the same time serve his reasons for appeal, with the law relied upon.

Yukon Placer Mining Act—concluded

12. The respondent shall file and serve on the appellant his reasons against the appeal, with the law relied upon, within seven days after the service of the reasons for appeal.

13. The appeal book must be clearly and legibly typewritten or printed, and must be approved of by the opposite party, or settled by the Gold Commissioner before filing, and shall contain the complaint and all proceedings, the evidence taken at the hearing, the exhibits used at the hearing, the judgment appealed from, the reasons for appeal and the reasons against the appeal, and must be properly paged and indexed.

14. The appellants shall serve the respondent, or his solicitor, with a copy of the appeal book, and shall file with the Clerk of the Territorial Court two copies of the appeal book within twenty days from the filing of the notice of appeal, or within such time as the Gold Commissioner may allow.

15. Upon the appeal book being filed, the appeal will be heard at such time as may be fixed by the Judge of the Territorial Court, provided it is not within three days from the filing of the appeal book.

16. Matters of procedure not provided for in these rules, shall be governed by the procedure in force in the Territorial Court of the Yukon Territory.

17. Where no probate of the will of a deceased person or letters of administration to his estate have been granted, and representation of his estate is required in any Arbitration Proceeding, the Judge may appoint the Public Administrator administrator *ad litem* according as the Proceeding requires.

18. An Arbitration Proceeding shall not become abated by reason of the death of any of the parties, and shall not become defective by the assignment, creation or devolution of any estate or title during the currency of such Proceeding.

I HEREBY CERTIFY that the foregoing is a true copy of all Regulations, and Amendments thereto, promulgated by the Controller of the Yukon Territory under the provisions of section 74, subsection 6, of the Yukon Placer Mining Act.

DATED at Dawson, in the Yukon Territory, this 3rd day of June, A.D., 1948.

J. E. GIBBEN,

Controller of the Yukon Territory.

NOTE: *By an amendment to the Yukon Placer Mining Act, the Commissioner of the Yukon Territory exercises the powers, duties and functions formerly exercised by the Gold Commissioner under these rules.*

YUKON QUARTZ MINING ACT. (R.S.C., 1927, c. 217)

No statutory orders or regulations were in effect under this statute on December 31st, 1949.

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529550
Canada. Privy Council
Statutory orders and regulations:
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